

THE IMPACT OF LEADERSHIP TRAINING  
ON NINTH GRADE STUDENTS' ACADEMIC ACHIEVEMENT,  
DISCIPLINARY REFERRALS, EXTRACURRICULAR ACTIVITIES  
PARTICIPATION,  
AND LEADERSHIP SKILLS

By

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To My Mother, Joanne Taylor Bretz, and My Father,  
Alfred A. Bretz, Jr.

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Major Department: Educational Leadership

The demand for leaders in our society has never been greater. Many educators, business persons, and government officials believe a solution may lie in the systematic development of leadership skills in young people. The purpose of this study was to determine the effect of a leadership-training program on the academic achievement, disciplinary referrals, extracurricular activities involvement, and self-reports of leadership skills of students who participated in such a program compared to those who did not.

This study focused on a group of 35 ninth grade students who participated in a three-week Summer Leadership Institute program during the summer of 1996, compared to a group of 35 ninth grade students with similar academic aptitude who did not participate in the leadership training.



The results showed that the students who participated in the leadership training scored significantly higher in reading achievement, participated more often in extracurricular activities, and scored significantly higher in their ratings of several domains of leadership skills than the students who did not participate in the leadership training.

## CHAPTER 1

### INTRODUCTION

Historically, public schools have operated on the assumption that students who score highest on standardized tests will eventually become society's leaders and most productive citizens. However, current assessment practices do not provide equitable opportunities for all students (Fantini, 1989). The use of standardized tests to determine who should be recognized and offered advancement is likely to impose barriers for many students. To counteract some of the constraints inherent in using standardized tests and the politicization of assessment practices, federal legislation was implemented to assure that all children, regardless of gender, race, nationality, and handicapping conditions, have the right to equitable educational opportunities and access to public schools (Americans With Disabilities Act of 1990; Civil Rights Act of 1964, Title VI; Discrimination Based on Sex, Title IX; Education For All Handicapped Children Act; Equal Educational Opportunities Act). However, not even federal mandates can guarantee student success. In addition, none of the major reform agendas has addressed how race, gender, or socioeconomic status might impact that success.

### Rationale of the Study

Beginning with the New Federalism, government has pressured schools to show greater accountability for student outcomes (National Commission on Excellence in Education, 1983; SCANS, 1991; U.S. Department of Education, 1991, 1992, 1993, 1994; U.S. Department of Labor, 1987). As a result of the public's demand for a record of accountability, parents, business persons, government officials, and educators have demanded improvement in their schools. For example, parents have played a more active role at the local school level. Business has pleaded for young people who can function as problem solvers and team players. Government has demanded responsible, knowledgeable officials and citizens.

Many leaders in education and private enterprise believe the solution may lie in the systematic development of leadership skills in young people. Business and industry have responded with substantial monetary commitments to fund leadership training (Baker, 1993; Karnes & Meriweather, 1988; Martinez, 1992). How can educators better prepare all students for challenges that lie ahead? One proactive response may be realized in the curriculum that public schools offer. The development of leadership skills training programs aimed at fostering leadership potential might be instrumental in helping students acquire essential skills.

Mandates for equity in education require that all students have equal opportunities. Therefore, if the development of student leadership is considered to be a

critical aspect of education, then all students must have the opportunity to develop their leadership potential. However, there have been few programs designed to enhance student leadership skills. Too often the development of students as leaders is limited solely to an experience whereby someone elects or selects them for such roles. In actuality, few young people have the opportunity to experience such roles. A training program aimed specifically at building leadership potential is more likely to provide all students an opportunity to develop comprehensive leadership skills than the random opportunities typically available.

Although the development of leadership skills in today's society seems widely acclaimed, the discrepancy between beliefs and program opportunities raises important questions. Central to such a discussion is developing a common philosophy among stakeholders in public education. For example, what does the term "leadership" mean to educators? Is student leadership development an important educational need? What leadership skills should students learn? How should they be taught? How can leadership training be addressed in the context of global educational needs? What types of programs to develop leadership skills currently exist? What obstacles prevent schools from implementing the type of instruction in which students might develop leadership skills? Do students' learning needs

differ with respect to gender, socioeconomic status, race, or academic ability?

### Research Questions and Hypotheses

Research focused on examining the type of public school leadership training programs available and determining their impact on students' success seems to be a logical response to the issues raised in the previous discussion. In a very broad sense, this study addressed these areas of concern. The purpose of this study was to determine the effect of a leadership- training program on the academic achievement, disciplinary referrals, extracurricular activities participation, and self-reports of leadership skills among ninth graders in a public junior high school in the state of Florida. The following research question was explored. Does leadership training affect academic achievement, disciplinary referrals, extracurricular activities participation, and/or leadership skills? In other words, do students who participate in leadership training demonstrate significant differences in these areas as compared to students who do not participate? In order to investigate this question, the following null hypotheses were developed.

1. After controlling for IQ, there will be no significant difference in academic achievement (reading, language, mathematics, and total battery) between students who participate in the leadership program and those who do not.

2. After controlling for IQ, there will be no significant difference in student academic achievement (reading, language, mathematics, and total battery) when compared by race.

3. After controlling for IQ, there will be no significant difference in student academic achievement (reading, language, mathematics, and total battery) when compared by gender.

4. After controlling for IQ, there will be no significant effect on student academic achievement (reading, language, mathematics, and total battery) due to the interaction of race and treatment.

5. After controlling for IQ, there will be no significant effect on student academic achievement (reading, language, mathematics, and total battery) due to the interaction of gender and treatment.

6. After controlling for IQ, there will be no significant effect on student academic achievement (reading, language, mathematics, and total battery) due to the interaction of race and gender.

7. After controlling for IQ, there will be no significant effect on student academic achievement (reading, language, mathematics, and total battery) due to the interaction of race, gender, and treatment.

8. After controlling for IQ, there will be no significant difference in disciplinary referrals between

students who participate in the leadership program and those who do not.

9. After controlling for IQ, there will be no significant difference in student disciplinary referrals then compared by race.

10. After controlling for IQ, there will be no significant difference in student disciplinary referrals when compared by gender.

11. After controlling for IQ, there will be no significant effect on student disciplinary referrals due to the interaction of race and treatment.

12. After controlling for IQ, there will be no significant effect on student disciplinary referrals due to the interaction of gender and treatment.

13. After controlling for IQ, there will be no significant effect on student disciplinary referrals due to the interaction of race and gender.

14. After controlling for IQ, there will be no significant effect on student disciplinary referrals due to the interaction of race, gender, and treatment.

15. After controlling for IQ, there will be no significant difference in extracurricular activities between students who participate in the leadership program and those who do not.

16. After controlling for IQ, there will be no significant difference in student extracurricular activities when compared by race.

17. After controlling for IQ, there will be no significant difference in student extracurricular activities when compared by gender.

18. After controlling for IQ, there will be no significant effect on student extracurricular activities due to the interaction of race and treatment.

19. After controlling for IQ, there will be no significant effect on student extracurricular activities due to the interaction of gender and treatment.

20. After controlling for IQ, there will be no significant effect on student extracurricular activities due to the interaction of race and gender.

21. After controlling for IQ, there will be no significant effect on student extracurricular activities due to the interaction of race, gender, and treatment.

22. After controlling for IQ, there will be no significant difference in student leadership skills inventory scores between students who participate in the leadership program and those who do not.

23. After controlling for IQ, there will be no significant difference in student leadership skills inventory scores when compared by race.

24. After controlling for IQ, there will be no significant difference in student leadership skills inventory scores when compared by gender.

25. After controlling for IQ, there will be no significant effect on student leadership skills inventory



scores due to the interaction of race and treatment.

26. After controlling for IQ, there will be no significant effect on student leadership skills inventory scores due to the interaction of gender and treatment.

27. After controlling for IQ, there will be no significant effect on student leadership skills inventory scores due to the interaction of race and gender.

28. After controlling for IQ, there will be no significant effect on student leadership skills inventory scores due to the interaction of race, gender, and treatment.

The scope of the study was limited to students who participated in a leadership program at a junior high school located in the State of Florida. A norm-referenced test was used to measure students' academic achievement before and after participation in the leadership program. Following participation in the leadership training course and after controlling for differences due to IQ, students were compared to students who did not participate in the training in achievement, disciplinary referrals, extracurricular activities participation, and self-reports of leadership skills, by gender, race, and treatment.

#### Significance of the Study

Examining the impact of leadership training on students' academic achievement provides an opportunity to see how such training impacts students, regardless of gender, socioeconomic status, race, or academic ability.

Positive results of leadership training would be observable by significant gains in achievement test scores, improved behavior, and increased participation in the school community. In this study, academic achievement was measured by the California Test of Basic Skills (CTBS) scores from the spring just prior to the leadership training and those one year later. Behavior was assessed by determining the number of discipline referrals each student had, as maintained in student data base records. Involvement in extracurricular activities and knowledge of leadership skills were measured by students' self-reports and their responses to a leadership skills inventory.

Because this study included a specific leadership training program, other educational institutions could model or adapt it for their students. With the scarcity of research on student leadership below the college level and the lack of research about how leadership impacts academic achievement or student behavior, this study could begin to fill a void in the area of student leadership research.

#### Limitations of the Study

When determining the value of a research study, it was also important to consider related limitations to external and internal validity. Because the study included only ninth grade students in one junior high school in one state in one country, the results should be considered solely in the context of this study. The generalizability of this study is, therefore, limited only to similar populations. In

addition, students were able to elect to participate in the leadership-training component of this study. Therefore, the lack of a randomized treatment group made it difficult to control for bias due to the participants and posed a potential threat to the ability to draw causal inferences. Attempts to establish reliability for the leadership study questionnaire were not performed in the context of the study. Since reliability provides the consistency that makes validity possible, it is acknowledged that without establishing reliability for this researcher-constructed instrument, attempts to ensure its validity are somewhat limited.

#### Definition of Terms

Academic achievement is a measure of grade appropriate attainment in reading, language, mathematics, and total battery, as measured by the California Test of Basic Skills.

Behavior refers to the frequency of disciplinary referrals as recorded on student data base records.

California Test of Basic Skills (CTBS) is the test used to measure academic achievement in reading, language, mathematics, and total battery in this study.

Equity means that all students, regardless of their race, gender, learning ability, have access to equal educational opportunities.

Extracurricular activities includes participation in a nonacademic activity and community, school, and leadership roles that students reported holding.

Gender refers to male or female.

Leadership Skills Inventory (LSI) is a survey in which students rate the level of specific leadership skills they possess.

Middle-level student refers to an individual who attends an educational setting that houses grades 6-8 or 7-9 students.

Race refers to students who are of Caucasian, African-American, Hispanic, or Asian (Oriental-American) origin.

Self-reports are listings that students complete to reflect the extent of their involvement in extracurricular activities.

Standardized tests are nationally normed achievement tests, typically administered annually to students across the United States.

Treatment is the leadership training provided through the Summer Leadership Institute, developed and implemented at a large suburban junior high school in northeast Florida.

#### Summary

Chapter 1 provided an introduction to the study, a rationale for conducting the study, a statement of the problem, the research question, null hypotheses, and definitions of terms used. Review of the literature relevant to this study is found in Chapter 2. Research methodology and procedures are described in Chapter 3. Results of the study are presented in Chapter 4. Discussion and interpretation of the findings are presented in Chapter 5.

## CHAPTER 2

### REVIEW OF THE LITERATURE

The purpose of this study was to examine the impact of a leadership-training course on the academic achievement, disciplinary referrals, extracurricular activities participation, and leadership skills of ninth-grade students. The purpose of this chapter is to provide a review of the literature and research studies related to this study. Toward this end, an overview of four topics will be presented: (a) definitions of leadership; (b) studies of student leadership; (c) student leadership models; and (d) extracurricular activity programs.

#### Definitions of Leadership

In this section, an overview of the various definitions of leadership and the skills, attitudes, and behaviors that characterize a leader is provided. This section should provide a useful reference to the various definitions of leadership, as well as an overview of the diversity of perceptions about the term, "leadership."

According to Perino and Perino (1988), "leadership is a term that everyone seems to think they understand yet is very difficult to define" (p. 23). Reasons for an imprecise definition may be related to the diverse components that characterize a leader's personality, the consistency of

leadership ability, and the type of situations that bring out leadership qualities. Despite this complexity, Perino and Perino (1988) define leadership as "the ability to influence others in a situation where actions of the group are focused toward a common end" (p. 23). They suggested that there are several characteristics common to leaders. These include the following: a desire to lead, an ability to understand feelings about oneself and empathize with others, the ability to utilize and direct people with a diverse range of skills, having a good self-concept and knowledge of the field, and the ability to communicate with others.

Passow (1988) agreed that while leadership is difficult to define, we need to develop "a clearer conception of the nature of leadership" (p. 34). Viewing leadership as a group-related process, Passow stressed the elements of group interaction, situational goals, and the ability to achieve goals and help others to achieve goals. Roets (1988) claimed that leadership is both "a skill and an art" (p. 39) that must be "viewed and understood as an integrated whole but practiced and executed according to individual steps and skills" (p. 39). He believed all people have some leadership abilities that can be developed and utilized when the need arises. Unfortunately, educators have relied on rather unsophisticated and perhaps unvalidated indicators of leadership skills. There has been a tendency to equate evidence of leadership skills with students' participation in extracurricular activities in school, church, and youth

organizations. Participation in and of itself does not mean that students are exhibiting leadership behavior. In fact, they might be acting as passive followers.

Etzioni (1988) claimed that leadership could be a source of motivation and serve as a basis for management. What matters most to people and what motivates them most powerfully is what they understand and feel about the core beliefs of their particular group or community. Leaders can focus the synergy of a group toward a common goal.

Sergiovanni (1990) articulated four stages/styles of leadership: bargaining, building, bonding, and banking. The successful leader is one who builds the leadership of others and strives to become a leader of leaders. The successful leader is also one who can function in the role of a good follower, one who can allow others to step forward and assume a leadership role. This demonstrates a commitment to ideas, values, and beliefs, not power or control. "When followership is established, bureaucratic authority and psychological authority are transcended by moral authority" (Sergiovanni, 1990, p. 27).

Karnes and Chauvin (1985) claimed that there are nine areas of skills which good leaders possess: (a) a fundamental understanding of leadership; (b) communication skills; (c) special skills; (d) understanding of values; (e) decision-making skills; (f) group dynamic skills; (g) problem-solving skills; (h) personal skills; and (i) planning skills. These skills, considered teachable by

Karnes and Chauvin (1985), comprise the base of their Leadership Skills Inventory, a widely used diagnostic and growth assessment for leadership training programs.

Lamb and Busse (1983) found that the most systematic and scientific studies of leadership have been conducted in the business world. Leadership studies have focused on morale (keeping the workers happy) and structure (getting people to work to achieve common tasks). After examining numerous aspects of leadership in relation to people and production, Lamb and Busse attempted to apply the Blake/Mouton model (1964) to a classroom setting. This model focuses on two extremes of leadership style, one with a high concern for task and one for people.

Applying this model to a group of gifted middle school students, Lamb and Busse (1983) found that the dominant leadership "style" was actually a lack of power to effect a situation meaningfully. Lamb and Busse reported that children viewed their world realistically and claimed that "the bulk of their lives is planned, controlled, and judged by others" (p. 23). The children also reported that they had "minimal influence on the decisions which affect their lives" (p. 23).

In a related research study, Porter (1989) viewed "the need to foster a sense of personal ownership {as} a particularly important leadership responsibility" (p. 11). He identified behaviors that facilitate the development of leadership (e.g., allowing individuals to be directly



involved in and held responsible for results in problem-solving situations). Such behavior promotes leadership. The outcomes are more effective and adaptive than imposed solutions without active participation. When individuals experience a sense of control and empowerment in their environment, make choices that make a difference, and feel responsible for "resultant consequences" (p. 13), they experience a sense of personal ownership. Porter claimed that to enhance a sense of personal ownership, leaders must (a) demonstrate specific skills and behaviors; (b) specify ways of recognizing and rewarding competent contributions; (c) listen to and recognize others as valued persons; (d) create opportunities for others to develop progressively greater skills in role-related activities; (e) break down barriers; (f) recognize the importance of collegial interaction; (g) create self-management teams that will engage in organizational problem-solving and planning activities; (h) ensure that the way individual roles contribute to the collective whole is understood; and (i) avoid allowing managing and controlling to become ends unto themselves (pp. 13-15).

While a great deal of research on adult leadership roles and theory was found, only a few research studies about grade school children and leadership were found. DeHaan (1962) found that primary and high school age students differ greatly in their perceptions of leadership. He reported that primary age children define leadership as

concrete and immediately experiential (e. g., telling others what to do), while high school students have more abstract and idealistic definitions of leadership (e.g., being an example, gaining respect, serving others, holding high ideals).

In a study about students' views of leadership in the year 2000, seventh through twelfth graders reported that having communication and decision-making skills, self-confidence, intelligence, responsibility, enthusiasm, and creativity would be necessary (Meriweather & Karnes, 1989). An overwhelming majority of the students reported that leadership training should receive higher priority in school. The students also stated that in order to prepare for leadership roles, they planned to obtain a good education, work in leadership positions and related activities, and volunteer in the community. The majority of students reported that society was now more accepting of women in leadership roles, especially politics, than in the past. They suggested that technology is likely to have a significant impact on leadership. On the other hand, students observed that health issues, stress-induced problems, over-commitment of time and activity are likely to have an adverse effect on leadership behavior.

#### Studies of Student Leadership

"Although leadership has been analyzed and debated for centuries, systematic leadership studies are basically a 20th century phenomenon" (Renick, Terrell, Jones, 1989, p.

42). Understanding leadership and how to develop leaders, however, has not grown in proportion to the literature on leadership. The study of leadership has focused on purpose, dimension, relationship, or vision. A recurrent theme in these studies is the belief that effective leadership is a function of learned behavior (Renick, Terrell, Jones, 1989).

In this section the following subtopics will frame the overview of research about studies of student leadership:

(a) demographic characteristics of student leaders; (b) students as leaders; (c) leadership and group problem solving; and (d) dynamics between teenage leaders and followers.

#### Demographic Characteristics of Student Leaders

Katz (1972) observed approximately 150 low income sixth graders in their classrooms to determine if a relationship existed between individual power and prestige in the classroom and that individual's modernity (degree to which an individual feels able to control his/her destiny). External status characteristics such as race, gender, and social class had a dramatic effect on students' expectations for success in the classroom, on the job, and in life. Katz observed that (a) African-American and Hispanic children and girls participated less in the classroom than Caucasians; (b) African-American and Hispanic children felt less modern and efficacious than Caucasians; and (c) girls felt less in control of their success than boys. Katz concluded that the attitudes children bring to school might prevent them from

participating and impede their ability to attain power and prestige. He suggested that lack of encouragement to participate also reinforced students' low modernity.

#### Students as Leaders

In 1983, the University of Pittsburgh established a leadership-training program for eighth- and ninth-grade students. Students who viewed themselves as leaders and those who did not were targeted as participants for the program. Structured exercises and activities were implemented to help students assess their leadership knowledge, attitudes, and skills. Students also prepared personal leadership plans that they expected to implement during the school year. An evaluation of the program indicated that students reported they made substantial gains in leadership knowledge and attitudes as a result of their training.

#### Leadership and Group Problem Solving

Myers, Slavin, and Southern (1990) examined the relationship between leadership and task demands in groups of gifted students engaged in unstructured, creative activities at a week-long summer institute. Using Fiedler's dimensional analysis of task structures (1967), they anticipated that participative leaders would emerge most often in the groups, be most successful, and be perceived as most successful. Although it was unclear how task influenced the emergence of leadership itself, the types of leaders (active, authoritative, passive, participative,

antagonistic, and product/process) predicted by Fiedler appeared in the groups. The individual's strength of personality (fluency, verbal aggression) was a major force in maintaining leadership. Students who were verbally dominant were rated as effective leaders, regardless of the final product. Groups with interpersonal leaders generally produced higher quality products. However, students were unable to see a correlation between leader effectiveness and the quality of the final product. Some leaders who emerged early lost their group's attention in the latter part of the session when they were perceived as negative, domineering, or frivolous.

These findings coincided with Fiedler's (1967) stages of group problem solving. He observed that success with unstructured tasks required a leader who can help the group define a problem. The ability to identify a problem exemplifies Getzel's characterization of the "creative problem solver as a problem finder" (1982, p. 260). Interpersonal leadership seemed to be the most facilitative way to involve all members in problem definition. Once the problem has evolved to more specific tasks, other leadership styles may emerge and be successful. Myers, Slavin, and Southern (1990) reported that when shifting from the leader to the task it was an inability to identify the type of leadership most effective for a specific task, not a lack of leadership itself, that might have accounted for the results. As a result of these observations, they claimed

that future research should focus on the nature of the task as well as the type of leadership behaviors that emerged.

#### Dynamics Between Teenage Leaders and Followers

Granstrom (1986) investigated the interaction strategies among classroom teenage group leaders and the patterns of communication between followers and leaders. He identified outstanding male teenage leaders (ages 14-16) in ten different schools of the same county. When allowed to select their own seats, students showed a similar pattern 96% of the time. Leaders were found at the back of the room or nearest a side wall, while followers seated themselves quite close to the leader (often rearranging furniture to achieve such a position). Teachers seemed to be more tolerant of leaders' behavior. They gave the general impression that leaders have not only a greater psychological space but also a larger physical area to move about than other students. Granstrom reported that leaders (a) were more active than followers; (b) were more dominating; (c) received more positive responses; (d) were approached in a more positive way by peers than non-leaders; and (e) were more apt to finish a communication than start it. Followers were more likely to initiate communication than finish it. Based on his observation of student interactions and communication patterns, Granstrom(1986) suggested that the quality of leadership can be discovered in the follower/leader relationship not by solely observing the leader's behavior.

### Student Leadership Models

Three models characterize undergraduate leadership programs throughout the United States. The (a) traditional, (b) academic, and (c) professional leadership program models will be discussed below. Within the framework characterizing the traditional model, students assume leadership positions and receive training to become more effective in their organizations. In the academic model, students enroll in interdisciplinary courses where faculty and guest speakers address specific subject matter about leaders. In the professional program model, students acquire skills designed to increase their effectiveness in a particular situation (Callahan & Mabey, 1985).

#### Traditional Leadership Program Models

Prosser (1983) suggested that secondary schools give high school students practical experience in self-government by offering co-curricular and student-run civics programs beyond classroom instruction. He claimed that giving students the leadership opportunities teaches them how to make and deal with the consequences of decisions. These instructional experiences can help students develop and practice the skills necessary for effective leadership. In this context, students are forced to rigorously examine their ideas and learn to be persuasive.

Prosser (1983) suggested the implementation of the Junior Statesmen of America, a non-partisan extracurricular program, would offer high school students practical

experience in the art of self-government. Program activities were designed to acquaint students with current political issues and the processes and institutions of American government. "This focus on issues and controversy brings public affairs alive for Junior Statesmen and acquaints them with all aspects of political and governmental decision making" (p. 24).

Distressed about how much of her time was spent on non-teaching tasks, Farrell (1989) devised a plan to lessen her clerical work and give students practice in leading, speaking, and training peers. In this program, the teacher trained prospective leaders by modeling each job during a two-to-three week period. When the class appeared ready, the teacher selected one of the most mature students to assist her while she acted as class leader. Subsequently, another student was selected to be the student class leader's assistant, and the process repeated itself. The acting student leader modeled the appropriate behaviors each week. All students served as a class leader at some point during the year. This system enabled students to learn a great deal about responsibility and cooperation. One key to the success of this plan was modeling the roles and responsibilities that weekly class leaders and assistants would assume (Farrell, 1989).

#### Academic Leadership Program Models

Active participation was the basis for the Leadership Studies Program offered at the University of Southern



Mississippi (Karnes & Chauvin, 1985, 1986). Students in the program took the Leadership Skills Inventory (Karnes & Chauvin, 1985), a self-rating and self-scoring inventory covering nine components necessary for leadership development. After identifying students' strengths and weaknesses, the teacher and the student selected activities to strengthen specified areas.

A key feature of the program was the development of a leadership program plan. Each student selected an important area of need for change in the school, community, or church. The plan had to reflect an intent to effect others' behavior or cause/create a positive change. The plan had to include statements identifying the major goal, specific objectives, resources, timelines, activities, and evaluation. An assessment of this program demonstrated improvement in students' self-confidence and responsibility, motivation to initiate activities, communication skills, and interpersonal and time management skills.

The University of Redlands in California offered a summer enrichment program for elementary and junior high students that emphasized the development of emergent leadership skills. Students who were above average in achievement and intellectual curiosity attended half-day sessions for five weeks. The elementary program included a historical study of the city of Redlands, California, culminating in the planning and constructing of a model city. In the junior high program, problem-solving skills

were developed through individual and group activities. Parents and teachers rated children on each of ten observable behaviors. At the conclusion of the program, DeHaan's (1958) survey of emergent leadership was used to evaluate leadership skills. The findings revealed that students' confidence in their skills as leaders increased, as did the awareness of their potential for impact as citizens in the community.

#### Professional Leadership Program Models

Maher (1985) developed a leadership program based on the premise that real leadership begins with service to others. The program was designed to serve the needs of the student, the school, and the community. Activities and exercises helped students analyze their skills and learn how to deal with group dynamics and peer pressures associated with leadership roles. A core requirement of the program was that all participants develop, coordinate, and participate on school service committees for the school year. Students were required to assist a worthwhile, charitable, religious, or humanitarian group in the community. As a result of this program, leadership students sponsored various school-community projects, such as health fairs and blood drives.

Most of the student leadership models support the need for students to acquire concepts and skills about the practice of leadership and to learn about leadership tools, resources, and styles. In the studies previously discussed, research showed that students were able to apply what they

learned to leadership roles. Group dynamics and communication skills were critical aspects of leadership training. Self-analysis through completion of a skills inventory and identification of strengths and weaknesses were also very important in the developing of leadership potential.

Preparing persons to train others in leadership requires a clear conception of the nature of leadership (Passow, 1988). Viewing leadership as a group-related process, Passow (1988) separated the leadership process from status position and focused on the acquisition of task-specific techniques. Claiming that leadership can be taught, he emphasized the importance of teaching facilitative interaction skills. Passow has claimed that educators who teach about leadership need training and field experience in the curriculum development, research, and administration of such programs. To understand talent and leadership, one should also have experience in developing one's own talents and creativity. He suggests that training programs should include opportunities for individuals to develop or create something that can be examined and critiqued.

Although some of the student leadership models recommend a comprehensive approach to leadership training and development, this is not a standard procedure. Students need to learn the concepts, skills, and theories inherent in the practice of leadership. In addition, they need

opportunities that help them learn about themselves and prepare them for leadership.

Understanding the developmental nature of leadership skills is critical to the development of leadership training programs. This area was not addressed in studies about student leadership models. Other aspects of leadership training not addressed in the models include studies about how gender, race, or socioeconomic status might affect the design and delivery of a leadership program.

#### Extracurricular Activity Programs

Educational objectives commonly ascribed to extracurricular activities can also be applied to formal school learning experiences (e.g., learning to work cooperatively with others, using leisure time effectively, developing one's abilities to the fullest). Similarly, educators know that leadership skills can be identified and taught. The extracurriculum or the student activity program is one avenue for addressing those needs. Extracurricular activities "have traditionally provided students with avenues for expression and relevant experiences" (Joekel, 1985, p. 4). These activities afford students the opportunity to develop leadership and self-worth while meeting their social and emotional needs.

Gholson (1985) contended that students gain immediate, long-term, and personal benefits from their participation in extracurricular activities. Mendez (1984) found that the most common individual characteristic among successful

people was that they were involved in student activities in school. He also challenged educational leaders to examine the relationship between involvement and levels of achievement (academic and nonacademic) which result because of that involvement.

### Summary

The review of the literature provided guidelines regarding the concepts and skills essential to an effective leadership-training program. The review also provides some suggestions for the development of an effective delivery model. For example, the student leadership research clearly illustrated the importance of helping young students acquire the concepts and skills associated with leadership. However, the research did not offer succinct guidance in identifying the definitive approach to fostering leadership skills. Viewing leadership as a combination of traits, skills, and behaviors or styles and developing leadership skills training that integrates these components may help educators. Research studies indicated that leadership skills are teachable. Moreover, researchers agreed that leadership development programs must be given higher priority in schools.

Most educators recognized that leadership development should begin early in a child's life. However, there is very little research about a leadership curriculum for elementary or middle level students. In contrast, there have been many studies about leadership programs for college level and

gifted students. Karnes and Meriweather (1989) contended that, "leadership experience at an early age is more highly correlated with adult leadership than . . . academic achievement" (p. 217). The long-term impact of involvement in leadership positions indicated that early involvement helped students sharpen selected skills (Schuh & Laverty, 1983). However, there have been no systematic or comprehensive surveys of student leadership to date and/or studies regarding the type of training teachers need in order to develop student leadership programs.

There was little to no research on student leadership and (a) attitudes and needs of academically or culturally at-risk students; (b) cultural, religious, or political factors; (c) its effect on student achievement and behavior; and (d) curriculum for K-12 students. There is a need for more information about grade-related patterns of activity participation, the influence of individual differences, and external pressures that contribute to grade-related patterns of participation.

The majority of the studies on student activities were correlational in design, so causes, consequences, and concomitants of participation were rarely distinguishable. Often inappropriate causal interpretation pervaded a substantial portion of the research literature. Most of the research conducted focused on gross measures of participation and lacked conceptual foundations (Bailey, 1987; Bardley, 1977; Bell, 1967; Bender, 1978; Busser, Long,

& Tweedy, 1975; Charitat, 1988; Cuccia, 1981; Damico & Scott, 1984; Dawis & Sung, 1984; Draeger, 1972; Eder & Parker, 1987; Feltz & Weiss, 1984; Hedgpeth, 1981; Rogers, 1970; Sagaria & Sagaria, 1984; Schafer, 1969; Spreitzer & Pugh, 1973; Yarworth & Gauthier, 1978).

The precise process by which participation facilitates academic outcomes is of great importance and interest, but very little research has addressed this topic. Exactly what attitudes and skills promoted by extracurricular experiences facilitate the realization of leadership behavior? Does involvement in extracurricular activities foster involvement in school governance?

After an extensive review of the literature on leadership, a number of questions about students and leadership remain, especially in the areas of leadership training opportunities for students, curriculum development for leadership training programs, and extracurricular activities. Some questions that remain include the following.

1. If there is a need for the systematic development of leadership skills in young people, why are there so few educational programs designed to enhance student leadership skills?
2. What obstacles prevent schools from implementing practices and programs that offer students these opportunities?

3. What are the components of an effective and comprehensive student leadership program?
4. What are the critical leadership skills, and how should they be taught to students?
5. Do students' learning needs in leadership skills differ with respect to gender, socioeconomic status, race, and academic ability?

In an effort to address questions three, four, and five, this study focused on how participation in a leadership-training program impacted students' academic achievement, disciplinary referrals, self-reports of their leadership skills, and participation in extracurricular activities.



## CHAPTER 3

### METHODOLOGY OF THE STUDY

Chapter Three provides a description of the methodology used for this study. A discussion of the (a) purpose of the study; (b) population and sample; (c) treatment; (d) variables of the study; (e) research design; (f) instrumentation; (g) data collection; (h) pilot study; (i) data analysis; and (j) threats to validity and reliability precede a summary of the chapter.

#### Purpose of the Study

The purpose of this study was to determine the impact of a comprehensive student leadership-training program on the academic achievement, discipline referrals, extracurricular activities, and self-reports of leadership skills of ninth graders in a public junior high school in the state of Florida. The following research question was investigated in this study. Does leadership training affect academic achievement, disciplinary referrals, extracurricular activities involvement, and/or leadership skills? In other words, do students who participate in leadership training demonstrate significant differences in these areas as compared to students who do not participate?

In order to investigate this question, the following null hypotheses were developed.

1. After controlling for IQ, there will be no significant difference in academic achievement (reading, language, mathematics, and total battery) between students who participate in the leadership program and those who do not.

2. After controlling for IQ, there will be no significant difference in student academic achievement (reading, language, mathematics, and total battery) when compared by race.

3. After controlling for IQ, there will be no significant difference in student academic achievement (reading, language, mathematics, and total battery) when compared by gender.

4. After controlling for IQ, there will be no significant effect on student academic achievement (reading, language, mathematics, and total battery) due to the interaction of race and treatment.

5. After controlling for IQ, there will be no significant effect on student academic achievement (reading, language, mathematics, and total battery) due to the interaction of gender and treatment.

6. After controlling for IQ, there will be no significant effect on student academic achievement (reading, language, mathematics, and total battery) due to the interaction of race and gender.

7. After controlling for IQ, there will be no significant effect on student academic achievement (reading, language, mathematics, and total battery) due to the interaction of race, gender, and treatment.

8. After controlling for IQ, there will be no significant difference in disciplinary referrals between students who participate in the leadership program and those who do not.

9. After controlling for IQ, there will be no significant difference in student disciplinary referrals when compared by race.

10. After controlling for IQ, there will be no significant difference in student disciplinary referrals when compared by gender.

11. After controlling for IQ, there will be no significant effect on student disciplinary referrals due to the interaction of race and treatment.

12. After controlling for IQ, there will be no significant effect on student disciplinary referrals due to the interaction of gender and treatment.

13. After controlling for IQ, there will be no significant effect on student disciplinary referrals due to the interaction of race and gender.

14. After controlling for IQ, there will be no significant effect on student disciplinary referrals due to the interaction of race, gender, and treatment.

15. After controlling for IQ, there will be no significant difference in extracurricular activities between students who participate in the leadership program and those who do not.

16. After controlling for IQ, there will be no significant difference in student extracurricular activities when compared by race.

17. After controlling for IQ, there will be no significant difference in student extracurricular activities when compared by gender.

18. After controlling for IQ, there will be no significant effect on student extracurricular activities due to the interaction of race and treatment.

19. After controlling for IQ, there will be no significant effect on student extracurricular activities due to the interaction of gender and treatment.

20. After controlling for IQ, there will be no significant effect on student extracurricular activities due to the interaction of race and gender.

21. After controlling for IQ, there will be no significant effect on student extracurricular activities due to the interaction of race, gender, and treatment.

22. After controlling for IQ, there will be no significant difference in leadership skills inventory scores between students who participate in the leadership program and those who do not.

23. After controlling for IQ, there will be no significant difference in student leadership skills inventory scores when compared by race.

24. After controlling for IQ, there will be no significant difference in student leadership skills inventory scores when compared by gender.

25. After controlling for IQ, there will be no significant effect on student leadership skills inventory scores due to the interaction of race and treatment.

26. After controlling for IQ, there will be no significant effect on student leadership skills inventory scores due to the interaction of gender and treatment.

27. After controlling for IQ, there will be no significant effect on student leadership skills inventory scores due to the interaction of race and gender.

28. After controlling for IQ, there will be no significant effect on student leadership skills inventory scores due to the interaction of race, gender, and treatment.

#### Population and Sample

The population of the northeast Florida junior high school used in this study included over 400 ninth-grade students in 1996-97. Forty students participated in the Summer Leadership Institute, but five dropped out of the study because they moved out the school district. The remaining 35 participants were designated as the treatment group; an additional 35 students comprised the control

group. The sample for this study was drawn from the ninth grade students in a large suburban junior high school (1300 students) in a middle-sized northeast Florida school district of about 22,000 students. The sample for the treatment group consisted of students recruited from the ninth grade English classes. Students selected to participate in the treatment group were simply recruited through the researcher's visits to English classes, public address and newsletter announcements, and solicitation through individual ninth-grade teachers. Once the study design and procedures were approved by the University of Florida Institutional Review Board (Appendix A), student participants were given letters explaining the project and permission forms to be completed by them and their parents (Appendix B). These students participated in one of the two three-week sessions of the Summer Leadership Institute.

The control group consisted of a stratified random sample of ninth graders from the same school who did not participate in the Summer Leadership Institute. The control group was selected by matching students' IQ, gender, and race to each student in the treatment group. This process was used to establish equitable groups; IQ was used as the covariate. Only students in the ninth grade for the 1996-97 school year were eligible to participate in the study. However, no other criteria were required for participation in the Summer Leadership Institute. A descriptive demographic profile of the students in both the treatment

and the control groups is shown in Table 3.1.

### Treatment

During the summer of 1996, a program called the Summer Leadership Institute (SLI) was offered. The program was designed to encourage students to develop leadership skills. Specific objectives of the SLI were to a) provide a rich, broad, and active experience for students and involve them in various aspects of leadership; b) discuss with students the implications of serving in leadership roles, including the impact on their lives and others; c) provide students with opportunities to learn about their leadership potential, skills, strengths, and weaknesses; d) increase students' self-awareness and knowledge about leadership; and e) help students become aware of leadership opportunities available to them.

The design of the Summer Leadership Institute emerged from a review of the literature on leadership research. The institute was a combination of elements from traditional, academic, and professional leadership-training program models. Group dynamics and interaction were key components of the program. Active participation in problem solving and decision making was also emphasized throughout the institute sessions. Increasing students' awareness of their leadership potential and their strengths and weaknesses was another desired component of the program. Learning about leadership tools, resources, and styles and how to apply them to various roles was also a critical component of the

Table 3.1

Demographic Background of Treatment and Control Groups by Race, Gender, and Age

	Treatment Group (n=35)	Control Group (n=35)
<u>Race</u>		
Minorities	6 <sup>a</sup>	6 <sup>b</sup>
Caucasian	29	29
<u>Gender</u>		
Female	16	16
Male	19	19
<u>Age</u>		
14 years	7	6
15	23	24
16	5	5

Note. a = denotes that Minorities included 3 African-Americans, 1 Hispanic, and 2 participants of mixed racial/ethnic background. b = denotes that Minorities included 2 African-Americans, 1 Asian-American, 1 Hispanic, and 2 participants of mixed racial/ethnic backgrounds.



leadership training program. The design of the Summer Leadership Institute was based on the belief that leadership skills can be taught and learned but that students need many opportunities for leadership early in their development. Appendix C contains an overview of the leadership institute program.

#### Variables of the Study

The independent variables were IQ, gender, race, and treatment. The dependent variables were change scores in (a) academic achievement as indicated by the CTBS; (b) number of disciplinary referrals; (c) number of extracurricular activities and the extent of involvement in these activities; and (d) leadership skills inventory scores.

#### Research Design

The pretest-posttest control-group design was used to test the effect of a student leadership training program (Summer Leadership Institute) on academic achievement, disciplinary referrals, and extracurricular activity participation. Both treatment and control groups were observed prior to the treatment and again after the treatment was administered to the treatment group.

#### Instrumentation

The California Test of Basic Skills (CTBS), 4th Edition (Form A, 17/18 for 8th Grade and 19 for 9th Grade), a nationally normed test, was used to assess changes in academic achievement. The test measured achievement levels in reading, language, and mathematics. The April, 1996, and

April, 1997, percentile test scores were used to document change scores after implementation of the treatment.

The Leadership Skills Inventory (LSI) was used to obtain students' self-reports of their leadership skills. The LSI lists statements that focus on the knowledge and skills of leadership in nine domains: a) fundamentals of leadership; (b) written communication skills; (c) speech communication skills; (d) values clarification; (e) decision making skills; (f) group dynamic skills; (g) problem solving skills; (h) personal skills; and (i) planning skills. For each statement, students were asked to rate how often (3=almost always, 2=on many occasions, 1=once in a while, or 0=almost never) they possessed a particular leadership ability. A copy of the inventory is in Appendix D.

Developed by Karnes and Chauvin (1985), the LSI reflects a thorough review of the literature pertaining to leadership and was designed to indicate areas of leadership skills needing additional development. In order to establish the content validity for the LSI, Karnes and Chauvin used two review groups: (a) adults working on developing leadership in youth in such groups as student council, scouting, gifted education, elementary and secondary education and (b) young people representing these same groups or areas. Suggestions from both groups were incorporated into the final inventory. Eight samples of students were obtained in seven states: California, Illinois, Kansas, Louisiana, Massachusetts, Mississippi, and

Nebraska. The total student sample was comprised of 452 students. Approximately 51% were females; 49% males. The ages of the total sample ranged from nine to eighteen years old, with a mean of 14.6 years. Two hundred forty-nine students were enrolled in public schools, 152 in private schools, 27 in a gifted class, and 24 in a leadership class.

The internal consistency reliability was examined in several ways. The overall internal consistency of each of the nine domains reported for all groups was determined and reported by using three methods and ranged as follows: (a) the split-half coefficient,  $\alpha = .65$  to  $.95$ ; (b) the Spearman-Brown formula,  $\alpha = .56$  to  $.95$ ; and (c) a Kuder-Richardson internal consistency formula,  $\alpha = .65$  to  $.95$ . The means and standard deviations for each of the nine scales were also determined.

The Leadership Study Questionnaire was developed by the researcher and used to gather demographic information about the students participating in the study. In addition, the questionnaire included questions about involvement in extracurricular activities and leadership roles. A copy of the questionnaire is found in Appendix E.

#### Data Collection

After the students for the treatment and the control groups were determined, the following data collection procedures were implemented. The 1996 and 1997 CTBS scores of the ninth graders participating in the Summer Leadership Institute treatment group ( $N=35$ ) were compared to the scores

of the comparable ninth graders who did not participate in the institute, the control group (N=35). Data gathered from individual student records for the 1995-96 school year were compared to data for the 1996-97 school year and used as outcome variables. These data included (a) pre- and posttest comparison of the students' CTBS scores for the tests administered in April, 1997 and 1996; (b) the number and type of disciplinary referrals in the students' 1996-97 and 1995-96 data base records; (c) the number and type of activities and leadership roles listed by the students in the summers of 1997 and 1996; and (d) ranking of specific leadership skills by students on a personal inventory of same in the summers of 1997 and 1996. As a follow-up to the analysis, adjusted means for the posttest values were calculated and compared with the pretest grand mean for achievement test scores.

#### Pilot Study

A pilot study of the explanatory letter and self-reports documents to be used in the study (Appendix F) was conducted in mid-May, 1996. Ten eighth graders (who would be ninth graders for the 1996-97 school year) participated in the pilot study. Students received the explanatory letter and the questionnaire that the treatment group would receive. They were asked to complete the questionnaire and to comment on any areas that needed clarification or improvement. Students offered no suggestions for changes to the letter or the questionnaire instrument.

### Statistical Tests

The statistical method used for the research question of this study was multivariate analysis of variance (MANOVA). MANOVA was the most appropriate statistical technique to determine whether several groups differ on more than one dependent variable. The statistical hypothesis was tested at the .05 level of significance. The multivariate analysis of variance was run on the SAS computer program.

Each domain item within the Leadership Skills Inventory was analyzed to see if the treatment had any impact on the resulting response. As in the previous analyses, the three-way interaction of gender, group, and race could not be estimated due to the small numbers in each cell. The full model, including all two-factor interactions (group by gender, group by race, and gender by race) and the three main effects (group, gender, and race), was fit for all questions. Each model was subsequently reduced to include only significant effect. The covariates, IQ, and the initial response were always kept in the model. For the overall analyses of the domain scores, the difference was taken between each score and then analyzed through an analysis of variance framework. For individual questions, however, the assumption of normality would not hold, and a different approach had to be utilized. The approach used was logistic regression, with a cumulative logit link. For each question, the response was the answer at the second timepoint. The initial answer at timepoint one and the IQ of the students

were used as covariates to adjust for where students started and to adjust for their intelligence. There were 125 items on the nine domains of the LSI. Due to the large number of models fit, the alpha level was set at 0.01 for determining significance.

### Threats to Validity and Reliability

Teachers of students who were the subjects for this study were unaware that their CTBS achievement scores for 1996 would be used in a quantitative study. This strategy eliminated test administrator bias and the Hawthorne Effect. However, uniform administration of the CTBS could not be guaranteed. In addition, the optimum physical and emotional well being of each student during the test-taking period could not be insured. Therefore, threats to internal validity due to expectancy, selection, and maturation could not be fully controlled.

In this study, external validity could not be assured because the participants in this study might not represent other middle-level students in Florida or in the United States. In addition, students' economic, social, cultural, ethnic, and demographic background might not be representative of other middle-level students. These findings must, therefore, be considered solely in the context of this study.

### Summary

In Chapter Three the purpose of the study (including the research question and null hypotheses), population and

sample, treatment, variables of the study, research design, instrumentation, data collection and pilot study procedures, data analysis, and threats to reliability and validity were discussed.

## CHAPTER 4

### ANALYSIS OF DATA

Chapter Four contains an analysis of data examined in the study. The analysis was directed to the research question: Do students who participate in leadership training demonstrate significant differences in academic achievement, behavior, extracurricular activities and/or leadership skills than students who do not participate?

The primary hypotheses tested for differences between/among groups (treatment, control), gender, and race, with respect to academic achievement, disciplinary referrals, extracurricular activities, and Leadership Skills Inventory (LSI) scores, while controlling for IQ. Except for IQ, all measurements were taken prior to and following the leadership training. The control group received no leadership training.

Both the treatment and control groups originally had 40 students. Because five of the students in the leader group moved out of district and were unable to complete participation in the study, both groups were adjusted to 35 students. Both the treatment and control groups were comprised by 16 females, 19 males, 29 Caucasians, 6



minorities. Since African-American, Hispanic, Asian-American, and mixed racial/ethnic participants were three or less, they were collapsed into one subgroup, "Minorities" (Table 3.1). Each group had an average IQ of 116.94. The standard deviation for the treatment group was 15.3 and 14.5 for the control group.

For each of the response variables, academic achievement measures, disciplinary referrals, and extracurricular activities, the difference between the 1995-1996 and 1996-1997 data was taken. These differences indicated the change in the measure over one year to the next, prior to and following implementation of the leadership training for the treatment and control groups. Measures for the Leadership Skills Inventory were taken in the summers of 1996 and 1997. Change scores represent the difference in these measures.

#### Analysis of Covariance

Since the hypotheses that were generated for the data consisted of differences between groups, gender, race, and combinations of them, along with controlling for IQ, a three-factor analysis of covariance was used to analyze the data. The three-factor analysis of covariance allowed testing for main effects (i.e., differences in groups alone, gender alone, and race alone), two-factor interactions (i.e., group by gender differences, group by race differences, and gender by race differences), and three-

factor interactions (i.e., group by gender by race differences), while adjusting for IQ.

The three-factor analysis of covariance model was the most appropriate model for answering the proposed hypotheses. Due to the very small numbers of African-Americans, Hispanics, Asian-Americans, and students of mixed racial/ethnic backgrounds, these subgroups were collapsed into one group, "Minorities." The three-factor interaction hypotheses (i.e., differences in measures when compared by race, gender, and group) could not be tested accurately since there were less than five subjects in the race by gender by group categories. Thus, the three-factor interaction was eliminated from analyses within the analysis of covariance models.

#### F-Tests

Tables 4.1-4.15 display the results of the F-tests for testing interactions and main effects. For each F-test a resulting p-value is given to indicate the significance level of the test. Typically, a cut-point for significance is a p-value less than 0.05. However, for purposes of discussion, it will be recognized that a p-value of 0.058, for example, approaches significance. When reading each table, one would start from the bottom, read up, and look for significant p-values (i.e.,  $p\text{-value} < 0.05$ ). The bottom line in the table denoting "IQ" was used only to adjust the analyses for different levels of students. In the notes section of each table in which there was a significant

Table 4.1

Total Reading Scores on CTBS

Dependent Variable: TOTAL READING					
Source	DF	Type III SS	Mean Square	F-Value	Pr>F
GROUP	1	861.628	861.628	8.39	0.006*
RACE	1	22.242	22.242	0.22	0.644
GENDER	1	252.456	252.456	2.46	0.123
GRP/RACE	1	288.496	288.496	2.81	0.100
GRP/GDR	1	38.356	38.356	0.37	0.544
RACE/GDR	1	40.189	40.189	0.39	0.535
IQ	1	75.160	75.160	0.73	0.396
Least Squares Means (LSM)					
Treatment			4.174		
Control			-6.334		

Note. \* = significant at 0.01 level

Table 4.2

Total Language Scores on CTBS

Dependent Variable: TOTAL LANGUAGE					
Source	DF	Type III SS	Mean Square	F-Value	Pr>F
GROUP	1	16.274	16.274	0.27	0.607
RACE	1	190.559	190.559	3.14	0.082
GENDER	1	30.325	30.325	0.50	0.483
GRP/RACE	1	18.225	18.225	0.30	0.586
GRP/GDR	1	43.364	43.364	0.71	0.402
RACE/GDR	1	7.610	7.610	0.13	0.725
IQ	1	44.083	44.083	0.73	0.398

Table 4.3

Total Mathematics Scores on CTBS

<u>Dependent Variable: TOTAL MATHEMATICS</u>						
Source	DF	Type III SS	Mean Square	F-Value	Pr>F	
GROUP	1	13.163	13.163	0.16	0.687	
RACE	1	163.446	163.466	2.04	0.160	
GENDER	1	0.054	0.054	0.00	0.979	
GRP/RACE	1	0.384	0.384	0.00	0.945	
GRP/GDR	1	0.854	0.854	0.01	0.918	
RACE/GDR	1	294.283	294.283	3.66	0.061	
IQ	1	35.788	35.788	0.45	0.507	

Table 4.4

Total Battery Scores on CTBS


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<u>Dependent Variable: TOTAL BATTERY</u>						
Source	DF	Type III SS	Mean Square	F-Value	Pr>F	
GROUP	1	75.002	75.002	1.93	0.170	
RACE	1	110.872	110.872	3.07	0.086	
GENDER	1	92.011	92.011	2.37	0.130	
GRP/RACE	1	25.063	25.063	0.65	0.425	
GRP/GDR	1	46.825	46.825	1.21	0.277	
RACE/GDR	1	49.409	49.409	1.27	0.264	
IQ	1	13.223	13.223	0.34	0.562	

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Table 4.5

Number of Disciplinary Referrals


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Dependent Variable: NUMBER OF DISCIPLINARY REFERRALS						
Source	DF	Type III SS	Mean Square	F-Value	Pr>F	
GROUP	1	0.295	0.295	0.19	0.662	
RACE	1	0.854	0.854	0.56	0.457	
GENDER	1	0.153	0.153	0.10	0.752	
GRP/RACE	1	0.951	0.951	0.62	0.432	
GRP/GDR	1	1.033	1.033	0.68	0.413	
RACE/GDR	1	0.016	0.016	0.01	0.918	
IQ	1	3.865	3.865	2.54	0.116	

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Table 4.6

Number of Extracurricular Activities<sup>a</sup>


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 Dependent Variable: NUMBER OF EXTRACURRICULAR  
ACTIVITIES<sup>b</sup>


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Source	DF	Type III SS	Mean Square	F-Value	Pr>F
GROUP	1	299.816	299.816	4.40	0.040*
RACE	1	19.233	19.233	0.28	0.597
GENDER	1	75.150	75.150	1.10	0.298
GRP/RACE	1	4.404	4.404	0.06	0.800
GRP/GDR	1	0.863	0.863	0.01	0.911
RACE/GDR	1	204.690	204.690	3.00	0.088
IQ	1	14.940	14.940	0.22	0.641

Least Square Means (LSM)

Treatment 0.372

Control -5.417

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**Note.** a = Denotes that all extracurricular activities are collapsed into one category, referred to as "extracurricular activities." b = In the pretest and posttest, the frequency of the control participants' involvement in extracurricular activities was as follows: academic team (n=2,n=2), band (n=11,n=11), cheerleading (n=2,n=2), chorus (n=5,n=5), dance (n=4,n=4), drama (n=0,n=9), gymnastics (n=2,n=2), hobby club (n=0,n=0), interscholastic sports (n=12,n=14), intramural sports (n=7,n=10), orchestra (n=0,n=0), religious group (n=8,n=8), scouts (n=2,n=2), service club (n=3,n=4), speech/debate (n=0,n=0), and student government (n=3,n=3) respectively. The pretest and posttest means respectively for the control group were 2.00 and 2.49. In the pretest and posttest, the frequency of the experimental participants' involvement in extracurricular activities was as follows: academic team (n=0,n=1), band (n=13,n=13), cheerleading (n=1,n=2), chorus (n=7,n=7), dance (n=3,n=4), drama (n=5,n=11), gymnastics (n=2,n=2), hobby club (n=0,n=0), interscholastic sports (n=14,n=17), intramural sports (n=14,n=18), orchestra (n=2,n=1), religious group (n=11,n=13), scouts (n=1,n=1), service club (n=2,n=7), speech/debate (n=1,n=2), and student government (n=4,n=4) respectively. The pretest and posttest means respectively for the treatment group were 2.34 and 3.17.

\* = significant at 0.05 level



Table 4.7

LSI Scores on Fundamentals of Leadership Domain


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Dependent Variable: FUNDAMENTALS OF LEADERSHIP DOMAIN					
Source	DF	Type III SS	Mean Square	F-Value	Pf>F
GROUP	1	61.350	61.350	3.31	0.066
RACE	1	29.851	29.851	1.71	0.196
GENDER	1	8.724	8.724	0.50	0.483
GRP/RACE	1	5.437	5.437	0.31	0.579
GRP/GDR	1	0.988	0.988	0.06	0.813
RACE/GDR	1	0.470	0.470	0.03	0.870
IQ	1	0.108	0.108	0.01	0.938

---

Table 4.8

LSI Scores on Written Communication Skills Domain


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Dependent Variable: WRITTEN COMMUNICATION SKILLS DOMAIN						
Source	DF	Type III SS	Mean Square	F-Value	Pr>F	
GROUP	1	78.978	78.978	3.65	0.061	
RACE	1	6.503	6.503	0.30	0.586	
GENDER	1	2.815	2.815	0.13	0.720	
GRP/RACE	1	8.425	8.425	0.39	0.535	
GRP/GDR	1	0.233	0.233	0.01	0.918	
RACE/GDR	1	2.584	2.584	0.12	0.731	
IQ	1	11.285	11.285	0.52	0.473	

---

Table 4.9

LSI Scores on Speech Communication Skills Domain

<u>Dependent Variable: SPEECH COMMUNICATION SKILLS DOMAIN</u>					
Source	DF	Type III SS	Mean Square	F-Value	Pr>F
GROUP	1	179.906	179.906	4.76	0.033*
RACE	1	47.292	47.292	1.25	0.268
GENDER	1	10.538	10.538	0.28	0.600
GRP/RACE	1	2.962	2.962	0.08	0.781
GRP/GDR	1	6.257	6.257	0.17	0.686
RACE/GDR	1	44.227	44.227	1.17	0.284
IQ	1	0.439	0.439	0.01	0.915
Least Squares Mean (LSM)					
Treatment			4.792		
Control			0.492		

---

Note. \* = significant at the 0.05 level

Table 4.10

LSI Scores on Values Clarification Domain


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Dependent Variable: VALUES CLARIFICATION DOMAIN						
Source	DR	Type III SS	Mean Square	F-Value	Pr>F	
GROUP	1	188.660	188.660	12.50	0.002*	
RACE	1	35.873	35.873	2.38	0.128	
GENDER	1	34.830	34.830	2.31	0.134	
GRP/RACE	1	85.942	85.942	5.69	0.020**	
GRP/GDR	1	8.301	8.301	0.55	0.461	
RACE/GDR	1	33.018	33.018	2.19	0.144	
IQ	1	12.129	12.129	0.80	0.374	

---

## Least Squares Mean (LSM)

## Caucasian      Minorities

Treatment      1.754      6.856

Control      0.316      -0.511

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Note. \* = significant at the 0.01 level

\*\* = significant at the 0.05 level

Table 4.11

LSI Scores on Decision Making Skills Domain

Dependent Variable: DECISION MAKING SKILLS DOMAIN					
Source	DF	Type III SS	Mean Square	F-Value	Pr>F
GROUP	1	27.401	27.401	2.36	0.130
RACE	1	39.430	39.430	3.39	0.070
GENDER	1	0.064	0.064	0.01	0.941
GRP/RACE	1	37.639	37.639	3.23	0.077
GRP/GDR	1	0.693	0.693	0.06	0.808
RACE/GDR	1	0.767	0.767	0.07	0.798
IQ	1	6.480	6.480	0.56	0.458

Table 4.12

LSI Scores on Group Dynamic Skills Domain


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Dependent Variable: GROUP DYNAMIC SKILLS DOMAIN					
Source	DF	Type III SS	Mean Square	F-Value	Pr>F
GROUP	1	74.110	74.110	1.05	0.307
RACE	1	2.795	2.795	0.04	0.842
GENDER	1	9.813	9.813	0.14	0.709
GRP/RACE	1	1.221	1.221	0.02	0.895
GRP/GDR	1	37.627	37.627	0.54	0.466
RACE/GDR	1	195.101	195.101	2.79	0.100
IQ	1	2.918	2.918	0.04	0.839

---

Table 4.13

LSI Scores on Problem Solving Skills Domain


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Dependent Variable: PROBLEM SOLVING SKILLS DOMAIN					
Source	DF	Type III SS	Mean Square	F-Value	Pr>F
GROUP	1	20.320	20.320	3.42	0.069
RACE	1	0.216	0.216	0.04	0.849
GENDER	1	3.056	3.056	0.51	0.476
GRP/RACE	1	18.375	18.375	3.09	0.084
GRP/GDR	1	2.071	2.071	0.35	0.557
RACE/GDR	1	11.404	11.404	1.92	0.171
IQ	1	1.333	1.333	0.22	0.637

---

Table 4.14

LSI Scores on Personal Skills Domain

<u>Dependent Variable: PERSONAL SKILLS DOMAIN</u>					
Source	DF	Type III SS	Mean Square	F-Value	Pr>F
GROUP	1	138.723	138.723	5.92	0.018*
RACE	1	10.159	10.159	0.43	0.518
GENDER	1	47.668	47.668	2.03	0.159
GRP/RACE	1	18.838	18.838	0.80	0.373
GRP/GDR	1	6.080	6.080	0.26	0.612
RACE/GDR	1	67.821	67.821	2.90	0.094
IQ	1	1.001	1.001	0.04	0.837
Least Squares Mean (LSM)					
Treatment		3.922			
Control		0.147			

---

Note. \* = significant at the 0.05 level



Table 4.15

LSI Scores on Planning Skills Domain

Dependent Variable: PLANNING SKILLS DOMAIN					
Source	DF	Type III SS	Mean Square	F-Value	Pr>F
GROUP	1	111.291	111.291	4.10	0.047*
RACE	1	7.317	7.317	0.27	0.605
GENDER	1	22.959	22.959	0.85	0.361
GRP/RACE	1	9.025	9.025	0.33	0.566
GRP/GDR	1	2.986	2.986	0.11	0.741
RACE/GDR	1	44.763	44.763	1.65	0.204
IQ	1	1.601	1.601	0.06	0.809
Least Squares Mean (LSM)					
Treatment			4.464		
Control			1.083		

---

Note. \* = significant at the 0.05 level

interaction, a summary of the Least Squares Means (LSM) is shown. The LSM are the estimates of what the means would have been for each group, treatment and control, if they had the same number of students in each. If each group had exactly the same number in each, then the LSM would equal the regular means (i.e., the average). In a sense, the LSM adjusts for the differing numbers in each group.

### Results

In Table 4.1 the control group had a LSM of -6.334, which means the change from before to after in Leadership Skills Inventory (LSI) scores on leadership was on the average -6.334, a significant decrease. The treatment group showed an increase in LSI scores of 4.174 from before to after training. The p-value for the treatment and control groups comparison was  $p \leq 0.006$ . This value was significant. The analysis showed there were no differences in any of the interactions for group, race, and gender or in the main effects between race and gender, but there were significant differences between groups. The treatment group had a greater increase in Total Reading scores.

The output for each analysis is presented in the same format as discussed for Table 4.1. This discussion also includes a summary of the results for the (a) CTBS scores, (b) disciplinary referrals, (c) extracurricular activities, (d) LSI domain scores, and (e) a pretest/posttest comparison by group for the LSI domain items.

### California Test of Basic Skills Results

A summary of the significant results that were found in the scores on the California Test of Basic Skills includes the following.

1. There were significant differences by group in the total reading scores ( $p \leq .0056$ ) (Table 4. 1).
2. There were no significant differences in the total language scores (Table 4.2).
3. There were no significant differences in the total mathematics scores ( $p \leq .0611$ ) (Table 4.3).
4. There were no significant differences in the total battery scores (Table 4.4).

### Number of Disciplinary Referrals Results

A summary of the results related to the number of disciplinary referrals showed that there were no significant differences (Table 4.5).

### Number of Extracurricular Activities Results

A summary of the results related to the number of extracurricular activities showed that there were significant differences by group ( $p \leq .04$ ) (Table 4.6).

### Leadership Skills Inventory Results

A summary of the significant results that were found on the Leadership Skills Inventory (LSI) included the following.

1. There were no significant differences in the fundamentals of leadership domain (Table 4.7).

2. There were no significant differences in the written communication skills domain (Table 4.8).
3. There were significant differences by group in the speech communication skills domain ( $p \leq .033$ ) (Table 4.9).
4. There were significant differences by group in the values clarification domain ( $p \leq .008$ ) and group by race ( $p \leq .02$ ) (Table 4.10).
5. There were no significant differences in the decision making skills domain (Table 4.11).
6. There were no significant differences in the group dynamics skills domain (Table 4.12).
7. There were no significant differences in the problem solving skills domain (Table 4.13).
8. There were significant differences by group in the personal skills domain ( $p \leq .018$ ) (Table 4.14).
9. There were significant differences by group in the planning skills domain ( $p \leq .047$ ) (Table 4.15).

Pretest/Posttest Comparison by Group for the LSI Domain Items

Each item within the nine LSI domains ( $n=125$ ) was analyzed to determine if treatment had a significant impact on the way in which participants rated individual items. The full analyses determined whether there was any association between race, gender, and the student's response to the LSI item, adjusting for how participants answered the item in the pretest and their IQ. The analysis models the probability that a participant rated items higher in the posttest compared to the pretest. The results are reported

for the effect of treatment only. For example, if the odds-ratio were significant, the participants in the treatment group were likely to rate items higher in the posttest when compared to the pretest. This implies that since everything else is the same about these students (except that some participants received the Summer Leadership Institute treatment and others did not), then something about the leadership training increased the likelihood of treatment group participants rating a domain item higher in the LSI posttest. In other words, the leadership training was associated with a greater chance of a participant rating a particular item higher on the posttest.

Table 4.16 lists each item within the nine LSI domains, the odds-ratio (probability of a participant rating an item higher in the LSI posttest), the p-value, and the level of significance. A summary of the LSI items that were significant is as follows.

1. Fundamentals of Leadership Domain Item 1.3 {I can tell the difference between the meaning of the terms "leader" and "leadership."} had a level of significance of 0.001.
2. Fundamentals of Leadership Domain Item 1.4 {I am able to identify various styles of leadership.} had a level of significance of 0.01.
3. Speech Communication Skills Domain Item 3.9 {I can deliver a prepared speech to a group.} had a level of significance of 0.005.

Table 4.16

Pretest/Posttest Comparison by Group for LSI Domain Items

		Odds-Ratio	P-Value	Level of Significance
1.	Domain: Fundamentals of Leadership			
1.1	I understand the meaning of the term	11.664	0.019	NS
1.2	I understand the meaning of the term "leadership."	3.624	0.115	NS
1.3	I can tell the difference between the meaning of the terms "leader" and "leadership." <sup>a</sup>	14.080	0.001	**
1.4	I am able to identify various styles of leadership. <sup>b</sup>	3.860	0.010	*
1.5	I can describe my own style of leadership.	2.478	0.080	NS
1.6	I can identify leadership styles of various leaders.	1.346	0.539	NS
1.7	I can identify various titles of leadership positions.	1.201	0.714	NS
1.8	I understand the requirements and responsibilities of leadership positions.	1.357	0.598	NS
1.9	I can identify the good and bad aspects of being a leader.	1.227	0.741	NS
2.	Domain: Written Communication Skills			
2.1	I know how to get and use written information.	1.793	0.281	NS
2.2	I can write my ideas so others can read and understand them.	2.138	0.142	NS
2.3	I can compare and contrast ideas in my writing.	3.014	0.046	NS
2.4	I can distinguish fact from opinion in writing.	1.025	0.967	NS
2.5	I can summarize written information.	2.446	0.089	NS

Table 4.16--continued

		Odds-Ratio	P-Value	Level of Significance
2.6	I can write an outline.	3.024	0.050	NS
2.7	I can write to persuade others to my point of view.	2.510	0.279	NS
2.8	I can write a business letter.	2.971	0.044	NS
2.9	I can write a social letter.	0.595	0.406	NS
2.10	I can prepare an agenda for a meeting.	1.066	0.896	NS
2.11	I can write a speech.	1.782	0.248	NS
2.12	I can evaluate my writing and the writing of others.	1.829	0.223	NS
3.	Domain: Speech Communication Skills			
3.1	I can speak in a clear and concise manner.	2.628	0.085	NS
3.2	I can tell others how I feel.	1.431	0.463	NS
3.3	I can participate in group discussions.	1.903	0.296	NS
3.4	I can summarize the ideas of the group and express them.	2.887	0.031	NS
3.5	I can tell both sides of an argument without allowing my own feelings to show.	1.366	0.510	NS
3.6	I can state and defend my viewpoint.	0.693	0.513	NS
3.7	I can offer constructive criticism in a kind manner.	2.890	0.046	NS
3.8	I know the various types of speeches and when each should be used.	2.146	0.104	NS
3.9	I can deliver a prepared speech to a group. <sup>c</sup>	4.670	0.005	***
3.10	I can deliver an extemporaneous speech to a group. <sup>d</sup>	8.620	0.000	****

Table 4.16--continued

	Odds-Ratio	P-Value	Level of Significance
3.11 I can moderate and direct panel discussions.	1.841	0.202	NS
3.12 I listen to others in order to be an effective communicator.	0.652	0.472	NS
3.13 I can use body language effectively as I speak.	2.543	0.090	NS
3.14 I am honest and sincere when speaking.	1.576	0.365	NS
4. Domain: Values Clarification			
4.1 I understand my own feelings.	0.828	0.777	NS
4.2 I care about others and treat others fairly.	7.468	0.031	NS
4.3 I try to understand the feelings of others.	2.579	0.208	NS
4.4 I am sensitive to the needs of others.	3.916	0.064	NS
4.5 I am sincere in my interest in other people.	3.921	0.076	NS
4.6 I try to deal honestly with others.	2.030	0.281	NS
4.7 I do what I say I will.	1.772	0.318	NS
4.8 I have strong beliefs and can defend them when necessary.	0.785	0.695	NS
4.9 I am willing to admit my mistakes.	1.481	0.478	NS
4.10 I have a set of personal standards. <sup>e</sup>	16.250	0.004	***
4.11 I have free choice in establishing my values.	2.119	0.236	NS
4.12 I know the things in my life that are important to me.	0.877	0.864	NS
4.13 I can state my choices publicly. <sup>f</sup>	5.320	0.010	*
4.14 I can keep my own standards even when others disagree with me.	1.066	0.920	NS
4.15 I can accept other people's ideas and values, even when they are different from mine.	2.405	0.184	NS



Table 4.16--continued

	Odds-Ratio	P-Value	Level of Significance
4.16 I respect the rights of others.	19.377	0.020	NS
4.17 I am loyal to my superiors and friends.	19.766	0.026	NS
5. Domain: Decision Making Skills			
5.1 I understand decision making skills.	4.028	0.050	NS
5.2 I can gather facts for decision making.	1.520	0.429	NS
5.3 I can accept advice from others.	0.648	0.456	NS
5.4 I can analyze facts before making a decision.	1.782	0.290	NS
5.5 I am aware of how my decisions affect others.	0.997	0.995	NS
5.6 I know how to reach logical conclusions.	0.788	0.687	NS
5.7 I can reach decisions on my own.	0.739	0.566	NS
5.8 I can make a decision quickly and accurately based on facts.	0.956	0.934	NS
5.9 I can accept the fact that my decisions may not always be popular in my group.	2.682	0.133	NS
5.10 I can support group decisions even though I do not always agree with them.	2.002	0.184	NS
6. Domain: Group Dynamic Skills			
6.1 I can lead a group discussion.	1.907	0.211	NS
6.2 I enjoy group activities.	1.653	0.462	NS
6.3 I know what "brainstorming" is and can lead a group in this exercise.	3.049	0.038	NS
6.4 I can use parliamentary procedure in leading a group.	1.454	0.417	NS

Table 4.16--continued

	Odds-Ratio	P-Value	Level of Significance
6.5 I use "we" instead of "I" when conducting group sessions on matters that involve the group. <sup>g</sup>	4.550	0.001	*
6.6 I can lead a group so that people feel safe expressing their opinions.	3.545	0.035	NS
6.7 I usually allow others to express their opinions before I express mine.	0.958	0.932	NS
6.8 I try to understand the point of view of others.	4.394	0.018	NS
6.9 I can keep in mind the best interests of the group. <sup>h</sup>	1000.000	0.002	*
6.10 I can resolve conflicts within a group.	1.727	0.305	NS
6.11 I recognize and value differences in individuals.	3.343	0.048	NS
6.12 I can distinguish between influence and manipulation.	2.290	0.115	NS
6.13 I do not take personally disagreement with my ideas.	1.183	0.737	NS
6.14 I can maintain trust within a group.	4.783	0.012	NS
6.15 I can keep a group on task.	1.150	0.788	NS
6.16 I can incorporate the suggestions of others.	2.441	0.091	NS
6.17 I can work effectively for compromise.	1.527	0.435	NS
6.18 I can help the group agree on a plan of action.	1.169	0.773	NS
6.19 I can give credit and praise to others for work well done.	4.990	0.049	NS
7. Domain: Problem Solving Skills			
7.1 I know and use the elements of problem solving.	1.412	0.485	NS

Table 4.16--continued

	Odds-Ratio	P-Value	Level of Significance
7.2 I know what to do as a leader in problem solving situations.	2.208	0.177	NS
7.3 I can identify problems.	1.911	0.387	NS
7.4 I can develop different ways to solve problems.	0.665	0.457	NS
7.5 I can select the best way to solve a problem.	2.084	0.183	NS
7.6 I can judge how effective my strategy is.	1.822	0.232	NS
8. Domain: Personal Skills			
8.1 I am self-confident.	1.433	0.581	NS
8.2 I feel comfortable in most situations.	1.716	0.343	NS
8.3 I can identify my strengths and weaknesses.	3.085	0.080	NS
8.4 I can acknowledge my mistakes.	0.712	0.533	NS
8.5 I can accept constructive criticism.	1.252	0.667	NS
8.6 I plan self-improvement.	5.466	0.024	NS
8.7 I am persistent.	2.447	0.257	NS
8.8 I try to avoid being overly sensitive.	2.016	0.251	NS
8.9 I am on time.	0.945	0.931	NS
8.10 I am reliable.	0.950	0.952	NS
8.11 I am enthusiastic.	3.170	0.082	NS
8.12 I am ambitious and desire success.	7.101	0.061	NS
8.13 I am a hard worker.	0.797	0.790	NS
8.14 I can deal with abstract concepts.	3.038	0.072	NS
8.15 I am patient with myself and others.	1.738	0.267	NS
8.16 I make friends easily.	3.130	0.157	NS
8.17 I try to be thoughtful about the feelings of others.	3.142	0.090	NS
8.18 I make an effort to remember names and faces.	4.063	0.145	NS
8.19 I can get along with others.	2.682	0.131	NS
8.20 I know how to dress for different occasions.	3.990	0.169	NS
8.21 I am neat in my work and appearance.	1.975	0.388	NS

Table 4.16--continued

	Odds-Ratio	P-Value	Level of Significance
9. Domain: Planning Skills			
9.1 I have organizational skills.	1.343	0.574	NS
9.2 I set reasonable goals for myself.	0.753	0.611	NS
9.3 I set reachable goals for groups.	3.170	0.081	NS
9.4 I can take the lead in group planning.	2.036	0.165	NS
9.5 I accept suggestions from other people.	0.859	0.795	NS
9.6 I can direct the efforts of the group.	1.947	0.191	NS
9.7 I seek advice when necessary.	0.710	0.543	NS
9.8 I can set objectives to help accomplish my goals.	1.970	0.202	NS
9.9 I can tell the outcomes of certain actions.	1.716	0.331	NS
9.10 I can tell what is needed to accomplish goals.	0.740	0.591	NS
9.11 I can develop and keep a timeline.	2.058	0.176	NS
9.12 I can meet deadlines.	1.892	0.307	NS
9.13 I can set up ways to measure if my goals are completed.	3.050	0.032	NS
9.14 I am not overwhelmed by details.	3.002	0.093	NS
9.15 I am flexible and can accept change.	1.830	0.287	NS
9.16 I can delegate authority.	1.620	0.332	NS
9.17 I review my plans and revise them from time to time.	1.140	0.798	NS

Notes. a = The odds of answering higher on the posttest is 14.08 times greater for the treatment group than the control group. b = The odds of answering higher on the posttest is 3.86 times greater for the treatment group than the control group. c = The odds of answering higher on the posttest is 4.67 times greater for the treatment group than the control group. d = The odds of answering higher on the posttest is 8.62 times greater for the treatment group than the control group. e = The odds of answering higher on the posttest is 16.25

Table 4.16--continued

times greater for the treatment group than the control group. f = The odds of answering higher on the posttest is 5.32 times greater for the treatment group than the control group. g = The odds of answering higher on the posttest is 4.55 times greater for the treatment group than the control group. h = The significance level for group is also impacted by the interaction between group and race. For the control group, the odds of answering higher in the posttest are 1.69 times greater for Caucasians than for Minorities. For the treatment group, the odds of answering higher on the posttest are 149.25 times greater for Minorities than Caucasians.

\* = significant at the  $p \leq 0.01$  level. \*\* = significant at the  $p \leq 0.001$  level. \*\*\* = significant at the  $p \leq 0.005$  level. \*\*\*\* = significant at the  $p \leq 0.0001$  level.

4. Speech Communication Skills Domain Item 3.10 {I can deliver an extemporaneous speech to a group.} had a level of significance of 0.0001.
5. Values Clarification Domain Item 4.10 {I have a set of personal standards.} had a level of significance of 0.005.
6. Values Clarification Domain Item 4.13 {I can state my choices publicly.} had a level of significance of 0.01.
7. Group Dynamic Skills Domain Item 6.5 {I use "we" instead of "I" when conducting group sessions on matters that involve the group.} had a level of significance of 0.01.
8. Group Dynamic Skills Domain Item 6.9 {I can keep in mind the best interests of the group.} had a level of significance of 0.005.

#### Students' Self-Reports on Leadership Study Questionnaire

Another portion of the data collected consisted of students' self-reports to certain questions on the Leadership Study Questionnaire (questions 1, 2, 5, 6, 7, 8, and 9 in Appendix E). Since the responses were so diverse and difficult to categorize, only summary statistics, i.e., frequencies, were provided for those measures (Table 4.17). Concerning Question #1 on the Leadership Study Questionnaire, a comparison of the top three rank ordered responses on the pretest by treatment and control groups respectively revealed that students in the treatment group cited as their greatest strength helpfulness ( $n=6$ ), getting along with others ( $n=6$ ), and leadership abilities ( $n=4$ ) in

Table 4.17

Summary of Students' Self-Reports on Leadership Study Questionnaire

The responses most frequently made by each group on the pretest and the posttest are listed.

Question #1: What do you consider your greatest strength as a person?

Pretest

Treatment Group

- 1-helpfulness (n=6)
- 2-getting along with others (n=6)
- 3-leadership abilities (n=4)

Control Group

- 1-helpfulness (n=6)
- 2-leadership abilities (n=5)
- 3-drive/determination (n=4)

Posttest

Treatment Group

- 1-leadership abilities (n=8)
- 2-helpfulness (n=6)
- 3-getting along with others (n=5)

Control Group

- 1-helpfulness (n=7)
- 2-leadership abilities (n=4)
- 3-drive/determination (n=4)

Question #2: What do you see yourself doing ten years from now?

Pretest

Treatment Group

- 1-doing well but no specifics (n=8)
- 2-medical career (n=7)
- 3-management (n=3)

Control Group

- 1-doing well but no specifics (n=10)
- 2-medical career (n=4)
- 3-management (n=4)

Posttest

Treatment Group

- 1-medical career (n=6)
- 2-doing well but no specifics (n=5)
- 3-management (n=4)
- counseling (n=4)
- performing (n=4)

Control Group

- 1-doing well but no specifics (n=10)
- 2-medical career (n=4)
- military (n=4)
- 3-do not know (n=4)

Question #5: Who has influenced you the most in your lifetime?

Pretest

Treatment Group

- 1-parent(s) (n=25)

Control Group

- 1-parent(s) (n=23)

Table 4.17--continuedPosttestTreatment Group

1-parent(s) (n=19)

Control Group

1-parent(s) (n=23)

Question #6: Do you plan to attend a post-high school institution of learning?

PretestTreatment Group

1-yes (n=32)

Control Group

1-yes (n=32)

PosttestTreatment Group

1-yes (n=33)

Control Group

1-yes (n=31)

Question #7: Do you feel good about yourself?

PretestTreatment Group

1-yes (n=26)

Control Group

1-yes (n=31)

PosttestTreatment Group

1-yes (n=31)

Control Group

1-yes (n=30)

Question #8: If you could change any one thing about yourself or your life, what would that be?

PretestTreatment Group

1-bad attitude (n=6)

2-nothing (n=4)

3-physical appearance (n=3)

grades (n=3)

Control Group

1-physical appearance (n=5)

2-nothing (n=4)

3-bad attitude (n=3)

living conditions (n=3)

PosttestTreatment Group

1-nothing (n=6)

2-listen to parents (n=5)

3-bad attitude (n=4)

Control Group

1-physical appearance (n=6)

2-nothing (n=4)

3-bad attitude (n=3)  
finances (n=3)  
living conditions (n=3)

Question #9: What do you consider the most difficult problem/situation you face as a person of your age?



Table 4.17--continuedPretestTreatment Group

1-peer pressure

(n=23)

Control Group

1-peer pressure

(n=20)

PosttestTreatment Group

1-peer pressure

(n=22)

Control Group

1-peer pressure

(n=18)

comparison to helpfulness (n=6), leadership abilities (n=5), and drive or determination (n=4) for students in the control group. In the posttest response to the same question, the treatment group responded that leadership abilities (n=8), helpfulness (n=6), and getting along with others (n=5) was their greatest strength, while the control group cited helpfulness (n=7), leadership abilities (n=4), and drive/determination (n=4).

Both treatment and control group students cited doing well in general but no career specifically (n=8/n=10), working in a medical field (n=7/n=4), and working in a management position (n=3/n=4) on the pretest question related to what they saw themselves doing in ten years (Leadership Questionnaire #2). In the posttest response to the same question, the treatment group responded that working in a medical field (n=6), doing well in general but no career specifically (n=5), and either management (n=4), counseling (n=4), or performing arts (n=4) was what they saw in their future, while the control group cited doing well in general (n=10), working in a medical or military field (n=4), or not knowing (n=4).

When asked who had influenced them most in their lives on the pretest (Leadership Study Questionnaire #5), students in both treatment and control groups respectively cited parents (n=25/n=23) most frequently. A similar response (n=19/n=23) was found among both groups for the same question on the posttest. Almost all students in the

treatment and control groups respectively responded positively to the pretest question (Leadership Study Questionnaire #6) about attending a post-high school institution of learning ( $n=32/n=32$ ). Consistent responses were found for the same question on the posttest ( $n=33/n=31$ ). Treatment group students indicated on the pretest (Leadership Study Questionnaire #7) that they felt good about themselves ( $n=26$ ), as did control group students ( $n=31$ ). On the posttest, similar results were found for the treatment group ( $n=31$ ) and the control group (30) when they responded to the same question.

When asked on the pretest if they could change any one thing about themselves or their lives (Leadership Study Questionnaire #8), treatment group students cited bad attitude ( $n=6$ ), nothing ( $n=4$ ), and physical appearance ( $n=3$ ) or grades ( $n=3$ ) as compared to control group students who cited physical appearance ( $n=5$ ), nothing ( $n=4$ ), and bad attitude ( $n=3$ ) or living conditions ( $n=3$ ). On the posttest, treatment group students cited nothing ( $n=6$ ), listening to parents ( $n=5$ ), and bad attitude ( $n=4$ ) as what they would change as compared to physical appearance ( $n=6$ ), nothing ( $n=4$ ), and bad attitude ( $n=3$ ), finances ( $n=3$ ), or living conditions ( $n=3$ ) for the control group.

Responding on the pretest to what they considered the most difficult problem or situation they face at their age (Leadership Study Questionnaire #9), students in both treatment and control groups respectively cited peer

pressure ( $n=23/n=20$ ). The response to the same question on the posttest was again peer pressure for both groups ( $n=22/n=18$ ).

#### Students' Responses to Questions About Goals and Influences

For the three questions related to goals and influences (questions 3a, 3b, and 4 in Appendix E), the Fisher's Exact Test was used to compare the distribution of responses for treatment and control groups. The differences between groups due to treatment effect (leadership training vs. no leadership training) were negligible (Table 4.18). On both the pretest and the posttest, the majority of students indicated that they set goals for themselves, that they set goals based on what they wanted, and that others influenced what they did and wanted to do.

#### Hypotheses

The analysis of the data substantiated the null hypotheses that stated there would be no significant difference in academic achievement between students who participated in the leadership program and those who did not when compared by race, gender, race and gender, race/gender/treatment (hypotheses 1,2,4,5,6,7). However, there was a significant difference in the reading scores between groups when compared by treatment (hypothesis #3). Also substantiated were hypotheses 8-14, that stated there would be no significant difference in disciplinary referrals between race and treatment, gender and treatment, or students who participated in the leadership program and

Table 4.18

Fisher's Exact Test: Comparison of Responses to Goals/Influences Questions on Leadership Study Questionnaire

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Question #3a: Do you set goals for yourself?

	<u>Pretest</u>	<u>Posttest</u>
Treatment Group	Yes (n=30)	Yes (n=31)
	No (n=3)	No (n=1)
	NR (n=1)	NR (n=1)
	S (n=1)	S (n=2)
Control Group	Yes (n=27)	Yes (n=27)
	No (n=3)	No (n=3)
	NR (n=5)	NR (n=5)

Question #3b: Do you set goals based upon what you want?

	<u>Pretest</u>	<u>Posttest</u>
Treatment Group	Yes (n=19)	Yes (n=33)
	No (n=1)	No (n=0)
	NR (n=13)	NR (n=0)
	S (n=2)	S (n=2)
Control Group	Yes (n=25)	Yes (n=24)
	No (n=1)	No (n=1)
	NR (n=8)	NR (n=9)
	S (n=1)	S (n=1)

Question #4: Do others influence what you do or want to do?

	<u>Pretest</u>	<u>Posttest</u>
Treatment Group	Yes (n=17)	Yes (n=19)
	No (n=11)	No (n=7)
	NR (n=0)	NR (n=0)
	S (n=7)	S (n=9)
Control Group	Yes (n=18)	Yes (n=18)
	No (n=11)	No (n=10)
	NR (n=0)	NR (n=0)
	S (n=6)	S (n=7)

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Note. NR = no response made. S = sometimes

those who did not when compared by race, gender, treatment, race and gender, race and treatment, gender and treatment, or race/gender/treatment.

The null hypotheses that stated there would be no significant difference in extracurricular activities between students who participated in the leadership program and those who did not when compared by race, gender, race and gender, race and treatment, gender and treatment, or race/gender/treatment (hypotheses 15, 16, 18-21) were substantiated by the data analysis. There was, however, a significant difference in the extracurricular activities when the groups were compared by treatment (hypothesis 17). The null hypotheses that stated there would be no significant difference in leadership skill domain scores between students who participated in the leadership program and those who did not when compared by race, gender, race and gender, gender and treatment, or race/gender /treatment were substantiated by the data (hypotheses 22, 23, 25, 27, 28). There were significant differences between groups for the speech communication skills, values clarification, personal skills, and planning skills domains of the LSI when compared by treatment (hypothesis 24). There was also a significant difference between groups for the values clarification domain when compared by race and treatment (hypothesis 26).

### Summary

In this chapter the results of the analysis addressed the question: Do students who participate in leadership training demonstrate higher levels of academic achievement, appropriate classroom behavior, extracurricular activities involvement, and/or leadership skills than students who do not participate? The results of the present study showed that the students who participated in the leadership training (treatment group) scored significantly higher in reading achievement, were more frequently involved in extracurricular activities, and scored significantly higher on four of nine domains of leadership skills than the students who did not participate in the leadership training.

## CHAPTER 5

### CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The purpose of this study was to determine the relationship between participation in a leadership-training program and the academic achievement, disciplinary referrals, extracurricular involvement, and self-reports of leadership skills among ninth graders in a public junior high school in the state of Florida. Determining the impact of a leadership-training program on these areas was a response to widespread societal concern about preparing young people for future leadership roles as citizens, workers, and lifelong learners. By examining the relationships between a specific leadership training program and its effect on students, it was hoped that the results would show that students who participated in the Summer Leadership Institute would demonstrate higher levels of academic achievement, extracurricular activities, and leadership skills and fewer disciplinary referrals when compared to students who did not participate in the program. This would further support the value of including such programs in the curriculum for middle level students.



The results of this study showed that the students who participated in the leadership training scored significantly higher in reading achievement scores. In addition, participants were more frequently involved in extracurricular activities and scored significantly higher on four of nine leadership skill domains than the students who did not participate in the leadership training program. A possible interpretation of the results of this study suggests that leadership training may be beneficial to students' achievement and social/community involvement. However, caution in exercising this interpretation is needed due to the voluntary nature of the program. Chapter Five includes a discussion of the background information for this study, conclusions, implications of the study, and recommendations for future research.

#### Background Information for This Study

One of the recurrent themes stressed in the literature review was that learned behavior is integral to the development of leadership skills as well as effective leadership. Leadership skills are teachable, and early development of leadership is important. Even students understand that leadership training in schools needs higher priority. Extracurricular activities provide students an opportunity to develop leadership and self-worth, but they are not sufficient to equip students with the knowledge and skills necessary for full leadership development. Subsequently, this study emerged from an interest in

gathering additional information about the essential components of an effective and comprehensive student leadership program, determining how critical leadership skills should be taught to students, and discerning whether students' skills in various leadership domains differed with respect to gender, race, or academic ability.

The treatment (Summer Leadership Institute) used in this study was an attempt to provide a framework to meet the leadership training needs of students. The training program included components necessary for the comprehensive and developmental aspects of leadership. The treatment was developed by combining key elements of various leadership program models reviewed in the literature. For example, a self-rating inventory of components necessary for leadership development, the identification of strengths and weaknesses, and the implementation of a summer enrichment approach to leadership training representative of the academic leadership program models were implemented. Secondly, daily practical experiences in structured community activities and opportunities to make decisions and deal with the consequences of decisions representative of the traditional leadership program models were employed. Finally, activities designed to emphasize service to others and understanding the group dynamics and peer pressures associated with leadership roles representative of the professional leadership program models were implemented. The composition of the treatment and stratified, matched control groups

reflected an effort to assess differences due to gender, race, and ability.

Even though a great deal of research on adult leadership roles and theory was available, few research studies on leadership below the collegiate level existed. For this reason, the need for a study in this area was compelling.

### Conclusions

The leadership training program used as the treatment in this study was associated with higher academic achievement (i.e., reading scores), an increase in students' extracurricular activities involvement, and enhanced self reports of leadership skills. These gains could possibly be attributed to the strength of the Summer Leadership Institute (SLI) curriculum. Journal writing, goal setting, and emphasis on being an effective member of a group in problem solving and critical thinking could have helped students focus on academic priorities, such as reading, and enhanced their confidence in the classroom. Because all students had to contribute in the group activities, which were a critical part of the daily curriculum of the SLI, it is likely that they gained confidence and learned how to more effectively use their own strengths and work with others on problems and projects. This might explain the treatment group's higher LSI scores on some of the group dynamic skills domain items. The curricular emphasis on defining leadership, discussing leadership roles and styles,

and applying these concepts could have contributed to the treatment group's higher LSI scores on some of the leadership domain items. Finally, students were able to assess their leadership skills and apply them in the daily activities. Because the strategies employed and the curriculum implemented in the SLI may have reduced students' fears of being embarrassed in front of their peers, they probably learned more readily how to deal with mistakes without destroying their progress or confidence. In addition, this could explain the higher treatment group scores on some of the speech communication skills and the values clarification domain items.

Although these results must be interpreted cautiously, given the self-selection of the treatment group, these results suggest that incorporating student leadership training into the curriculum might have significant benefits. Results reflecting increased academic achievement and increased involvement in activities could indicate that the school is making progress on the state and national goals pertaining to student achievement and competing in an international arena. Given the limitations of the study, however, a direct correlation between the treatment and the results cannot be made. Those who volunteered could be more motivated and interested and might have outperformed the non-volunteers regardless of the treatment.

### Implications of the Study

Knowledge gained from this study begins to fill a deficit in research on student leadership. Analyzing how student leadership training effected academic and nonacademic achievement might be a valuable resource in revising curriculum, improving schools, and helping students achieve the Blueprint/America 2000 Goals of improving their academic performance and readiness for post-secondary programs (Goal Two), becoming better prepared citizens and community members, and functioning effectively and competitively in a global society (Goal Three). Additionally, the results of this study demonstrated students in the leadership training group realized significantly higher reading scores, increased involvement in extracurricular activities, and important changes in perceptions of their leadership abilities.

Summer Leadership Institute (SLI) activities that may have contributed to the treatment group's progress toward Blueprint/America 2000 Goals Two and Three include the visit to the University of Florida, sessions with former students who are in post-secondary educational institutions, and daily goal-setting activities. Learning to work and solve problems together on a daily basis, as well as the participation in the ROPES course and survival activities, are examples of the type of SLI experience students had that might be directly related to their progress toward Goals Two and Three of the Blueprint/America 2000 Goals.

After analyzing what was learned about the Summer Leadership Institute in this study, the following changes might be appropriate for future programs. The micro-society activities and program should be expanded, especially if the leadership class is lengthened to a semester course offering during the regular school year or if a leadership component is added to any other semester or year long course offering. A service learning component would also be an important addition to a lengthened leadership class. The structure of the class, of course, would have to be altered if the program were to be incorporated into the regular school year offerings and not blocked into a three-week summer training program.

#### Recommendations for Future Research

1. Involvement in extracurricular activities was an area in which students recorded increased participation and involvement from the time prior to their participation in the leadership-training program to one year afterward. However, little is known about the long-term impact of extracurricular activity participation prior to adulthood. Most existing studies, including this study, present extracurricular activities involvement in gross measures, without examining the long-range level of involvement. Case studies and longitudinal studies of students' involvement in extracurricular activities that include a more exhaustive analysis of the variables that impact success in life could shed light on the relationship between leadership training

and extracurricular pursuits. Informal input from students involved in this and other studies indicates the results would be positive. The few existing studies in this area show a dramatic difference between the success and quality of life for those who participated in extracurricular activities as young persons and those who did not.

Therefore, additional research is needed to assess the longitudinal impact of leadership training on the degree to which students participate in extracurricular activities and its potential effect on their quality of life as adults.

2. Even though past research has demonstrated that extracurricular activities promote positive social values and behavior, there has been no research in this area in recent decades. Despite the paucity of studies, available literature indicates that extracurricular activities contribute in vital ways to adolescent development and provide support for incorporating extracurricular activities into student leadership training programs. Perhaps future research can focus on the relationship between leadership programs and students' demonstration of socially appropriate behavior and values.

3. The content of the Summer Leadership Institute used in this study was determined, in part, by the length of the program (12 days). Consequently, additional research is needed to examine the breadth and scope of the curriculum in student leadership programs and the variables used in this study. In conjunction with these efforts, providing student

leadership programs as regular semester or year-long courses bears examination. The impact and long-range effects of such training might be heavily influenced by offering the training in this manner.

4. Additional research that targets the impact of leadership training programs on the lives of low-achieving or students at-risk is needed. In acknowledgment of the significant improvements realized by the small number of low-achieving students who participated in the study, further investigation concerning the potential benefits of leadership training in relationship to the duration of such a program for students with special needs is warranted.

5. Some of the limitations and threats to validity inherent to this study could be reduced or eliminated by future research that utilized a randomly-selected experimental group and a matched control group and the same variables.

6. Additionally, efforts to provide or produce a validated leadership study questionnaire might have decreased the limitations of this instrument.

7. Finally, utilizing closed ended items on the leadership study questionnaire would have minimized the difficulty in categorizing students' responses and facilitated a more substantial and sophisticated statistical analysis of the data obtained from this instrument.



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APPENDIX A  
APPROVAL OF STUDY BY UNIVERSITY OF  
FLORIDA INSTITUTIONAL REVIEW BOARD

APPROVAL OF STUDY BY UNIVERSITY OF  
FLORIDA INSTITUTIONAL REVIEW BOARD

University of Florida  
Institutional Review Board

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May 1, 1996

TO: Ms. Joanne B. Roberts  
350 Crossings Blvd., #324  
Orange Park, FL 32073

FROM: C. Michael Levy, Chair  
University of Florida Institutional  
Review Board

SUBJECT: Approval of Project #96.247  
The impact of student leadership training on  
the academic achievement of ninth graders  
Funding: Unfunded

I am pleased to advise you that the University of Florida Institutional Review Board has recommended the approval of this project. The Board concluded that participants will not be placed at more than minimal risk in this research, and it is essential that you obtain signed documentation of informed consent from each participant's parent or legal guardian. When it is feasible, you should obtain signatures from both parents. Enclosed is the dated, IRB-approved informed consent to be used when recruiting participants for this research.

If you wish to make any changes in this protocol, you must disclose your plans before you implement them so that the Board can assess their impact on your project. In addition, you must report to the Board any unexpected complications arising from the project which affect your participants.

If you have not completed this project by May 1, 1997, please telephone our office (392-0433), and we will tell you how to obtain a renewal.

It is important that you keep your Department Chair informed about the status of this research project.

CML/h2

cc: Dr. Linda Behar-Horenstein

APPENDIX B  
STUDY PARTICIPATION LETTER AND PARENTAL CONSENT FORM



## STUDY PARTICIPATION LETTER AND PARENTAL CONSENT FORM

---

(date)

Dear Parents:

My name is Joanne Roberts, and I am a graduate student in the Department of Educational Leadership at the University of Florida. As part of my doctoral research, I need to gather information on student leadership. I will need to administer a pre- and a posttest on students' knowledge of leadership and their involvement in activities fostering leadership. Students will also have to take one of the three-week Leadership Training Institutes at Ridgeview Junior High School this summer (June 18-July 9 or July 10-July 30). I am asking you permission for your child's participation.

The study involves research on student leadership and will require that the students involved take the pre- and posttests and attend each of the twelve days of their three-week leadership training institute. I will administer the pre-test to all participants at the end of May and the posttest at the end of August. These will be done during the school day and should take no more than 45 minutes. Every effort will be made to avoid students missing academic class time. However, in the event this does occur, students will be allowed to make up any missed work. The training will be conducted by Mrs. Sherry Gonzalez, who has taught the Leadership Institute at RJHS for the past five summers. (An overview of the leadership training is attached for your information.) The pre- and posttests are two sections: one an inventory of students' leadership skills; the other a profile of personal qualities and characteristics.

Participation or non-participation in this study will not affect a student's grade in any class or his/her status in the program. Students may participate in the leadership training without having to participate in this study. There are no risks or discomforts expected for students, other than what normally occurs in any growing, learning process. Anticipated benefits from participation in the study and the training include improved grades, improved CTBS scores, increased leadership involvement, and decreased discipline problems. Individual student scores and information will be kept confidential, to the extent provided by law, through a numerical coding system. Only group scores and information will be published. Data from this study will be published in my doctoral dissertation and made available to parents, students, teachers, and the School Board upon request. Students who complete the three-week leadership training will also receive .5 high school credit toward graduation.

Parents and students have the right to withdraw permission for a student's participation in the study or the use of the student's data at any time, without penalty or prejudice. However, the .5 credit cannot be awarded if the student is withdrawn from the leadership training itself. There are no limitations on what a student must score on the pre-test in order to participate in the study or the training. A student does not have to answer any question on the pre- or posttest to which s/he does not wish to respond.

If you have any questions or concerns about the study or the training, feel free to contact me at school via letter or by telephone at 272-3004. If you have questions or concerns about the students' rights as research participants, you should direct them to the UFIRB Office, P.O. Box 112250, University of Florida, Gainesville, FL, 32611-2250.

Sincerely,

Joanne B. Roberts  
Principal

I have read the procedure described above. I voluntarily agree to allow my child, \_\_\_\_\_, to participate in Mrs. Roberts' study on student leadership. I have received a copy of this description.

\_\_\_\_\_  
Parent/Guardian

\_\_\_\_\_  
Date

\_\_\_\_\_  
Second Parent/Witness

\_\_\_\_\_  
Date

(Required for parents with court-appointed joint custody)

After reading and signing, please retain the bottom copy for your records. The top copy should be returned to Mrs. Roberts.

APPENDIX C  
SUMMER LEADERSHIP INSTITUTE PROGRAM OVERVIEW

SUMMER  
LEADERSHIP  
INSTITUTE

An Opportunity for Students to  
Explore their Potential as Leaders

9<sup>th</sup> grade Students Only

Term A June 18-July 9, 1996  
Term B July 10-July 30, 1996

OFFERED AT RIDGEVIEW JUNIOR HIGH SCHOOL  
ORANGE PARK, FLORIDA

## ABOUT THE SUMMER LEADERSHIP INSTITUTE:

During the summer, Ridgeview Junior High School offers a unique opportunity for Clay County secondary students to earn original credit as an academic elective and, at the same time, think about who they are, where they are going, what they can do for their community, and what opportunities are available to them.

### PURPOSE:

To encourage the emergence and development of leadership and to promote community service and involvement.

### OBJECTIVES:

1. To provide a rich, broad experience for students, involving them in as many aspects of leadership and its implications for their lives and communities as possible.
2. To expose students to as many university opportunities and resources as possible.
3. To provide students the opportunities to learn more about their leadership potential, their skills, their strengths and weaknesses; to build on this increased self-awareness and knowledge; and see the vast opportunities available to them, their schools, and their communities because of them.

### TO THE STUDENT:

This institute represents a tremendous opportunity for you to share, to learn, to grow, to interact with others in your school and county. This is intended to be a time of learning, exploration, creativity, service, and fun! Included is an overview of the institute: you notice you will work and play hard! A great deal is packed into your 12 days. If you wish to participate in this exciting experience, please complete the attached application and return it by the deadline.

We look forward to seeing you! Apply now!

### FOR ADDITIONAL INFORMATION:

Contact: Joanne B. Roberts, Principal  
Ridgeview Junior High School  
466 Madison Avenue  
Orange Park, Florida 32065  
Telephone (904) 272-3004  
FAX (904) 272-6913

**CAREER RESEARCH AND DECISION MAKING (1700380)** $\frac{1}{2}$  Credit; Term A or B in Summer Session**WEEK 1: LEADERSHIP**

- Days 1 & 2: Introductory Activities  
 Micro-Society  
 Journal Writing  
 Leadership Skills Inventory  
 Josten's Leadership Series
- Day 3: Decision Making & Brainstorming Activities  
 Focus on Impact of Students on World  
 Community Involvement  
 Special Guests from Community
- Day 4: Wilderness Survival Activity at Anastasia  
 State Park in St. Augustine

**WEEK 2: CAREER**

- Day 1: Discussion & Follow-up on Wilderness  
 Activity  
 Career Inventory
- Day 2: Goal Setting
- Day 3: College Preparation  
 --former students, of college age  
 --SAT College Choices software activity  
 College Correspondence
- Day 4: University of Florida Visit to Major  
 Colleges on the Campus

**WEEK 3: TRUST & SELF-ESTEEM**

- Day 1: Personality Inventory
- Day 2: Mentoring  
 Circle Time  
 Role Playing
- Day 3: ROPES Activity at YMCA Certified Facility
- Day 4: Discussion of ROPES Activity

Each day during the three weeks, other than the days of an activity away from RJHS's campus, the students will do journal writing and participate in micro-society activities.

Materials and Resources Used in the SLIPathways to Performance Series

Josten's, Inc.

Josten's Educational Services

5501 Norman Center Drive

Minneapolis, Minnesota 55437

\*Accompanying Workbook written by Mark Scharenbroich

The New Choose To Lead, With Mark Scharenbroich

Scharenbroich & Associates

5702 Seven Oaks Court

Minnetonka, Minnesota 55345

The Leadership Skills Series

Produced by Leadership Institute at Ripon College

#14 Leadership Styles

Copyright Ripon College, 1989

Dilemma Game

Creative Learning Systems, Inc.

Boundary Breakers

John Schrader

NASSP Division of Student Activities

1904 Association Drive

Reston, Virginia 22091

Copyright, 1990

It's All In Your Mind

Kathleen A. Butler, Ph.D.

The Learner's Dimension

Columbia, Connecticut

Copyright, 1988

Skills For Leaders

John W. Gray & Angela Laird Pfeiffer

NASSP Division of Student Activities

1904 Association Drive

Reston, Virginia 22091

Copyright, 1987

Middle Level Leadership Handbook

NASSP Division of Student Activities

1904 Association Drive

Reston, Virginia 22091

Copyright, 1992

Bag of Tricks

James Sanborne

Search Publications

Colorado

Copyright, 1994

Leadership Magazine for Student Activities  
NASSP Division of Student Activities  
1904 Association Drive  
Reston, Virginia 22091



APPENDIX D  
LEADERSHIP SKILLS INVENTORY (LSI)

# LEADERSHIP SKILLS INVENTORY (LSI)

## LEADERSHIP SKILLS INVENTORY

### INDIVIDUAL FORM

\_\_\_\_\_ Pre-Assessment

\_\_\_\_\_ Post-Assessment

Name \_\_\_\_\_ Grade \_\_\_\_\_ Age \_\_\_\_\_ Sex \_\_\_\_\_

School \_\_\_\_\_

This inventory is made up of statements that focus on the knowledge and skills of leadership. This instrument is an inventory and not a test. Its purpose is to help you learn about your abilities in leadership skills. There are no right or wrong answers. For each statement mark the response that is true for you. Do not skip an item. Read each statement carefully and then check (✓) the one response which best describes your skills.

Check ALMOST ALWAYS if you usually possess this knowledge or skill.

Check ON MANY OCCASIONS if you frequently possess this knowledge or skill.

Check ONCE IN A WHILE if you occasionally possess this knowledge or skill.

Check ALMOST NEVER if you rarely possess this knowledge or skill.

### Fundamentals of Leadership

- |    |   | Almost<br>Always | On Many<br>Occasions | a While | Once in<br>Never | Almost<br>Value | Item |
|----|---|------------------|----------------------|---------|------------------|-----------------|------|
|    |   | (3)              | (2)                  |         | (1)              | (0)             |      |
| 1. | I understand the meaning of the term "leader."  |                  |                      |         |                  |                 |      |
| 2. | I understand the meaning of the term "leadership."                                    |                  |                      |         |                  |                 |      |
| 3. | I can tell the difference between the meaning of the terms "leader" and "leadership." |                  |                      |         |                  |                 |      |
| 4. | I am able to identify the various styles of leadership.                               |                  |                      |         |                  |                 |      |
| 5. | I can describe my own style of leadership.  |                  |                      |         |                  |                 |      |
| 6. | I can identify leadership styles of various leaders.                                  |                  |                      |         |                  |                 |      |
| 7. | I can identify various titles of leadership positions.                                |                  |                      |         |                  |                 |      |
| 8. | I understand the requirements and responsibilities of various leadership positions.   |                  |                      |         |                  |                 |      |
| 9. | I can identify the good and bad aspects of being a leader.                            |                  |                      |         |                  |                 |      |

Total Points \_\_\_\_\_

### Written Communication Skills

	Almost Always (3)	On Many Occasions (2)	Once in a While (1)	Almost Never (0)	Item Value
1. I know how to get and use written information.					
2. I can write my ideas so that others can read and understand them.					
3. I can compare and contrast ideas in my writing.					
4. I can distinguish fact from opinion in writing.					
5. I can summarize written information.					
6. I can write an outline.					
7. I can write to persuade others to my point of view.					
8. I can write a business letter.					
9. I can write a social letter.					
10. I can prepare an agenda for a meeting.					
11. I can write a speech.					
12. I can evaluate my writing and the writing of others.					

Total Points \_\_\_\_\_

# Speech Communication Skills

	Almost Always (3)	On Many Occasions (2)	Once in a While (1)	Almost Never (0)	Item Value
1. I can speak in a clear and concise manner.					
2. I can tell others how I feel.					
3. I can participate in group discussions.					
4. I can summarize the ideas of the group and express them.					
5. I can tell both sides of an argument without allowing my own feelings to show.					
6. I can state and defend my viewpoint.					
7. I can offer constructive criticism in a kind manner.					
8. I know the various types of speeches and when each should be used.					
9. I can deliver a prepared speech to a group.					
10. I can deliver an extemporaneous speech to a group.					
11. I can moderate and direct panel discussions.					
12. I listen to others in order to be an effective communicator.					
13. I can use body language effectively as I speak.					
14. I am honest and sincere when speaking.					

Total Points \_\_\_\_\_

### Values Clarification

	Almost Always (3)	On Many Occasions (2)	Once in a While (1)	Almost Never (0)	Item Value
1. I understand my own feelings.					
2. I care about others and treat others fairly.					
3. I try to understand the feelings of others.					
4. I am sensitive to the needs of others.					
5. I am sincere in my interest in other people.					
6. I try to deal honestly with others.					
7. I do what I say I will.					
8. I have strong beliefs and can defend them when necessary.					
9. I am willing to admit my mistakes.					
10. I have a set of personal standards.					
11. I have free choice in establishing my values.					
12. I know the things in my life that are important to me.					
13. I can state my choices publicly.					
14. I can keep my own standards even when others disagree with me.					
15. I can accept other people's ideas and values, even when they are different from mine.					
16. I respect the rights of others.					
17. I am loyal to my superiors and friends.					

Total Points \_\_\_\_\_

# Decision Making Skills

	Almost Always (3)	On Many Occasions (2)	Once in a While (1)	Almost Never (0)	Item Value
1.	I understand decision making skills.				
2.	I can gather facts for decision making.				
3.	I can accept advice from others.				
4.	I can analyze facts before making a decision.				
5.	I am aware of how my decisions will affect others.				
6.	I know how to reach logical conclusions.				
7.	I can reach decisions on my own.				
8.	I can make a decision quickly and accurately based on facts.				
9.	I can accept the fact that my decisions may not always be popular in my group.				
10.	I can support group decisions even though I do not always agree with them.				

Total Points \_\_\_\_\_

### Group Dynamic Skills

	Almost Always	On Many Occasions	Once in a While	Almost Never	Item Value
	(3)	(2)	(1)	(0)	
1. I can lead a group discussion.					
2. I enjoy group activities.					
3. I know what "brainstorming" is and can lead a group in this exercise.					
4. I can use parliamentary procedure in leading a group.					
5. I use "we" instead of "I" when conducting group sessions on matters that involve the group.					
6. I can lead a group so that people feel safe expressing their opinions.					
7. I usually allow others to express their opinions before I express mine.					
8. I try to understand the point of view of others.					
9. I keep in mind the best interests of the group.					
10. I can resolve conflicts within a group.					
11. I recognize and value differences in individuals.					
12. I can distinguish between influence and manipulation.					
13. I do not take personally disagreement with my ideas.					
14. I can maintain trust within a group.					
15. I can keep a group on task.					
16. I can incorporate the suggestions of others.					
17. I can work effectively for compromise.					
18. I can help the group agree upon a plan of action.					
19. I can give credit and praise to others for work well done.					

Total Points \_\_\_\_\_



### Problem Solving Skills

- |   | Almost<br>Always<br>(3) | On Many<br>Occasions<br>(2) | Once in<br>a While<br>(1) | Almost<br>Never<br>(0) | Item<br>Value |
|---|-------------------------|-----------------------------|---------------------------|------------------------|---------------|
| 1. I know and use the elements of problem solving.              |                         |                             |                           |                        |               |
| 2. I know what to do as a leader in problem solving situations. |                         |                             |                           |                        |               |
| 3. I can identify problems.                                     |                         |                             |                           |                        |               |
| 4. I can develop different ways to solve problems.              |                         |                             |                           |                        |               |
| 5. I can select the best way to solve a problem.                |                         |                             |                           |                        |               |
| 6. I can judge how effective my strategy is.                    |                         |                             |                           |                        |               |

Total Points \_\_\_\_\_

### Personal Skills

	Almost Always (3)	On Many Occasions (2)	Once in a While (1)	Almost Never (0)	Item Value
1.	I am self-confident.				
2.	I feel comfortable in most situations.				
3.	I can identify my strengths and weaknesses.				
4.	I can acknowledge my mistakes.				
5.	I can accept con- structive criticism.				
6.	I plan self- improvement.				
7.	I am persistent.				
8.	I try to avoid being overly sensitive.				
9.	I am on time.				
10.	I am reliable.				
11.	I am enthusiastic.				
12.	I am ambitious and desire success.				
13.	I am a hard worker.				
14.	I can deal with abstract concepts.				
15.	I am patient with myself and others.				
16.	I make friends easily.				
17.	I try to be thoughtful about the feelings of others.				
18.	I make an effort to remember names and faces.				
19.	I can get along with others.				
20.	I know how to dress for different occasions.				
21.	I am neat in my work and appearance.				

Total Points \_\_\_\_\_

### Planning Skills

	Almost Always (3)	On Many Occasions (2)	Once in a While (1)	Almost Never (0)	Item Value
1.	I have organiza-				
	tional skills.				
2.	I set reachable				
	goals for myself.				
3.	I set reachable				
	goals for groups.				
4.	I can take the				
	lead in group				
	planning.				
5.	I accept suggestions				
	from other people.				
6.	I can direct the				
	efforts of the group.				
7.	I seek advice when				
	necessary.				
8.	I can set objectives				
	to help accomplish				
	my goals.				
9.	I can tell the				
	outcomes of certain				
	actions.				
10.	I can tell what is				
	needed to accomplish				
	goals.				
11.	I can develop and keep				
	to a timeline.				
12.	I can meet deadlines.				
13.	I can set up ways to				
	measure if my goals				
	are completed.				
14.	I am not overwhelmed				
	by details.				
15.	I am flexible and				
	can accept change.				
16.	I can delegate				
	authority.				
17.	I review my plans				
	and revise them				
	from time to time.				

Total Points \_\_\_\_\_

APPENDIX E  
LEADERSHIP STUDY QUESTIONNAIRE

### LEADERSHIP STUDY QUESTIONNAIRE

Please be assured that any and all information you provide will be held in the strictest confidence and used only for research about student leadership. No names will be used in any conclusions or results compiled and published. No one but the principal investigator will see your name, which is requested only in case some response is not clear or additional information is needed.

1. What do you consider your greatest strength as a person? Be as specific as possible.

2. What do you see yourself doing ten years from now?

- 3.(a) Do you set goals for yourself? \_\_\_\_\_

If so, are they:      Daily?      Weekly?      Long-Range?  
(Check any which apply to you.)

(b) Do you set these goals based upon what you want?

4. Do others influence what you do or want to do?

\_\_\_\_\_

If so, to what extent? Be as specific as possible.

\_\_\_\_\_

5. Who has influenced you most in your lifetime? Name the person(s) and explain how and why he/she/they have influenced you. \_\_\_\_\_
- \_\_\_\_\_

6. Do you plan to attend a post-high school institution of learning?      Yes      No

7. Do you feel good about yourself? \_\_\_\_\_  
If so, why specifically? \_\_\_\_\_
- \_\_\_\_\_

If not, why specifically?

8. If you could change any one thing about yourself or your life, what would that be?

9. What do you consider the most difficult problem or situation you face as a person of your age? Be as specific as possible.

10. Extracurricular Activities--Check any in which you have participated during the past year.

<input type="checkbox"/> Gymnastics	<input type="checkbox"/> Dance	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Student Government	<input type="checkbox"/> Cheerleading	_____
<input type="checkbox"/> Orchestra	<input type="checkbox"/> Hobby Club	_____
<input type="checkbox"/> Band	<input type="checkbox"/> Service Club	_____
<input type="checkbox"/> Chorus	<input type="checkbox"/> Drama	
<input type="checkbox"/> Scouts	<input type="checkbox"/> Speech & Debate	
<input type="checkbox"/> Intramural Sports	<input type="checkbox"/> Religious Group	
<input type="checkbox"/> Interscholastic	<input type="checkbox"/> Academic Team	
<input type="checkbox"/> Sports		

11. List any leadership roles you have held during the past year.

12. Please check as appropriate for you.

Gender: ☐ Female ☐ Male

Ethnicity/Race: ☐ African-American

☐ Asian

☐ Caucasian

☐ Hispanic

☐ Other: \_\_\_\_\_

13. Place of Birth: \_\_\_\_\_

14. Age: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

15. Student Name: \_\_\_\_\_

APPENDIX F  
PILOT STUDY PARTICIPATION LETTER, PARENTAL CONSENT  
FORM, AND LEADERSHIP STUDY QUESTIONNAIRE

PILOT STUDY PARTICIPATION LETTER, PARENTAL CONSENT FORM, AND  
LEADERSHIP STUDY QUESTIONNAIRE

\_\_\_\_\_  
(date)

Dear Parents:

My name is Joanne Roberts, and I am a graduate student in the Department of Educational Leadership at the University of Florida. As part of my doctoral research, I need to gather information on student leadership. I will need to administer a pre- and a posttest on students' knowledge of leadership and their involvement in activities fostering leadership. Students will also have to take one of the three-week Leadership Training Institutes at Ridgeview Junior High School this summer (June 18-July 9 or July 10-July 30). I am asking your permission for your child's participation.

The study involves research on student leadership and will require that the students involved take the pre- and posttests and attend each of the twelve days of their three-week leadership training institute. I will administer the pre-test to all participants at the end of May and the posttest at the end of August. These will be done during the school day and should take no more than 45 minutes. Every effort will be made to avoid students missing academic class time. However, in the event this does occur, students will be allowed to make up any missed work. The training will be conducted by Mrs. Sherry Gonzalez, who has taught the Leadership Institute at RJHS for the past five summers. (An overview of the leadership training is attached for your information.) The pre- and posttests are two sections: one an inventory of students' leadership skills; the other a profile of personal qualities and characteristics.

Participation or non-participation in this study will not affect a student's grade in any class or his/her status in the program. Students may participate in the leadership training without having to participate in this study. There are no risks or discomforts expected for students, other than what normally occurs in any growing, learning process. Anticipated benefits from participation in the study and the training include improved grades, improved CTBS scores, increased leadership involvement, and decreased discipline problems. Individual student scores and information will be kept confidential, to the extent provided by law, through a numerical coding system. Only group scores and information will be published. Data from this study will be published in my doctoral dissertation and made available to parents, students, teachers, and the School Board upon request. Students who complete the three-week leadership training will also receive .5 high school credit toward graduation.

Parents and students have the right to withdraw permission for a student's participation in the study or the use of the student's data at any time, without penalty or prejudice. However, the .5 credit cannot be awarded if a student is withdrawn from the leadership training itself. There are no limitations on what a student must "score" on the pre-test in order to participate in the study or the training. A student does not have to answer any question on the pre- or posttest to which s/he does not wish to respond.



If you have questions or concerns about the study or the training, feel free to contact me at school via letter or by telephone at 272-3004. If you have questions or concerns about the students' rights as research participants, you should direct them to the UFIRB Office, P.O. Box 112250, University of Florida, Gainesville, FL, 32611-2250.

Sincerely,

Joanne B. Roberts  
Principal

I have read the procedure described above. I voluntarily agree to allow my child, \_\_\_\_\_, to participate in Mrs. Roberts' study on student leadership. I have received a copy of this description.

\_\_\_\_\_  
Parent/Guardian

\_\_\_\_\_  
Date

\_\_\_\_\_  
Second Parent/Witness

\_\_\_\_\_  
Date

(Required for parents with court-appointed joint custody)

After reading and signing, please retain the bottom copy for your records. The top copy should be returned to Mrs. Roberts.

### Leadership Study Questionnaire

Please be assured that any and all information you provide will be held in the strictest confidence and used only for research about student leadership. No names will be used in any conclusions or results compiled and published. No one but the principal investigator will see your name, which is requested only in case some response is not clear or additional information is needed.

1. What do you consider your greatest strength as a person?  
Be as specific as possible.

---

---

2. What do you see yourself doing ten years from now?

---

---

3. (a) Do you set goals for yourself? \_\_\_\_\_

If so, are they:      Daily?      Weekly?      Long-Range?  
(Check any which apply to you.)

(b) Do you set these goals based upon what you want?

4. Do others influence what you do or want to do? \_\_\_\_\_

If so, to what extent? Be as specific as possible.

---

---

---

5. Who has influenced you most in your lifetime? Name the person(s) and explain how and why he/she/they have influenced you. \_\_\_\_\_

---

---

---

---

6. Do you plan to attend a post-high school institution of learning?      Yes      No

7. Do you feel good about yourself? \_\_\_\_\_

If so, why specifically? \_\_\_\_\_

If not, why specifically? \_\_\_\_\_

8. If you could change any one thing about yourself or your life, what would that be?

9. What do you consider the most difficult problem or situation you face as a person of your age? Be as specific as possible. \_\_\_\_\_

10. Extracurricular Activities--Check any in which you have participated during the past year.

<input type="checkbox"/> Gymnastics	<input type="checkbox"/> Dance	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Student Government	<input type="checkbox"/> Cheerleading	_____
<input type="checkbox"/> Orchestra	<input type="checkbox"/> Hobby Club	_____
<input type="checkbox"/> Band	<input type="checkbox"/> Service Club	_____
<input type="checkbox"/> Chorus	<input type="checkbox"/> Drama	
<input type="checkbox"/> Scouts	<input type="checkbox"/> Speech & Debate	
<input type="checkbox"/> Intramural Sports	<input type="checkbox"/> Religious Group	
<input type="checkbox"/> Interscholastic	<input type="checkbox"/> Academic Team	
<input type="checkbox"/> Sports		

11. List any leadership roles you have held during the past year. \_\_\_\_\_

12. Check as appropriate for you.

Gender: ☐ Female ☐ Male

Ethnicity/Race: ☐ African-American

☐ Asian

☐ Caucasian

☐ Hispanic

☐ Other: \_\_\_\_\_

13. Place of Birth: \_\_\_\_\_

14. Age: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

15. Student Name: \_\_\_\_\_

## BIOGRAPHICAL SKETCH

Joanne Bretz Roberts graduated as Valedictorian of the class of 1963 at Bartow Senior High School in Bartow, Florida. Upon receiving her Bachelor of Arts degree in English from the University of Florida in 1970, she began her teaching career as a junior high school English teacher in Green Cove Springs, Florida. After teaching and serving as Dean of Students there, she earned her Master Of Education Degree in Curriculum and Instruction and certification in Administration and Supervision from the University of Florida in 1974 and moved on to assistant principal duties in the district. Appointed principal in 1986, she opened Ridgeview Junior High School as a new school in Orange Park, Florida, and five years later began her doctoral studies in educational leadership at the University of Florida. She has been able to complete her doctoral work because of the tremendous support of her faculty and staff and is currently overseeing the transition of Ridgeview Junior High School to Ridgeview High School.

I certify that I have read this study and that in my opinion it conforms to acceptable standards for scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.



Linda Behar-Horenstein, Chair  
Associate Professor of  
Educational Leadership

I certify that I have read this study and that in my opinion it conforms to acceptable standards for scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.



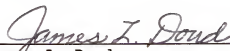
Elizabeth Bondy  
Associate Professor of  
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I certify that I have read this study and that in my opinion it conforms to acceptable standards for scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.



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Professor of Educational  
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I certify that I have read this study and that in my opinion it conforms to acceptable standards for scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.



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This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Education.

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